

**Draft Air Individual Permit  
Part 70 Reissuance  
04500049-102**

**Permittee:** POET Biorefining - Preston  
**Facility name:** POET Biorefining - Preston  
701 Industrial Dr N  
Preston, MN 55965-9017  
Fillmore County

**Expiration date:** [TBD - 5 years from issuance]

\* All Title I Conditions do not expire

**Part 70 Reissuance:** [TBD]

**Permit characteristics:** Federal; Part 70/ Limits to avoid NSR; Limits to avoid NSR

The emission units, control equipment and emission stacks at the stationary source authorized in this permit reissuance are as described in the submittals listed in the Permit Applications Table.

This permit reissuance supersedes Air Emission Permit No. 04500049-101 and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

*Signature:* ( )

*This document has been electronically signed.*

*for* Steven S. Pak, P.E., Manager  
Air Quality Permits Section  
Industrial Division

*for the Minnesota Pollution Control Agency*

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**1. Permit applications table**

| Title description  | Application receipt date         | Action number |
|--------------------|----------------------------------|---------------|
| Major Amendment    | 03/02/2026                       | 04500049-102  |
| Permit Reopening   | MPCA initiated action 10/10/2024 | 04500049-102  |
| Part 70 Reissuance | 01/31/2024                       | 04500049-102  |

## 2. Where to send submittals

Send submittals that are required to be submitted to the EPA regional office to:

Chief Air Enforcement  
Air and Radiation Branch  
EPA Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue NW (6204M)  
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6<sup>th</sup> Floor  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator  
Industrial Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

**Or**

Email a signed and scanned PDF copy to:  
[submitstacktest.pca@state.mn.us](mailto:submitstacktest.pca@state.mn.us)  
(for submittals related to stack testing)  
[AQRoutineReport.PCA@state.mn.us](mailto:AQRoutineReport.PCA@state.mn.us)  
(for other compliance submittals)  
(See complete email instructions in “Routine Air Report Instructions Letter” at  
<https://www.pca.state.mn.us/sites/default/files/aq-f6-15.pdf>)

### 3. Facility description

The POET Biorefining - Preston (Facility) is located at 701 Industrial Drive N, Preston, Fillmore County, Minnesota.

POET Biorefining - Preston, LLC (POET) operates a bioethanol production plant (facility) in Preston, Minnesota. POET primarily uses corn feedstock to produce fuel ethanol and byproducts. The facility is permitted to produce up to 80 million gallons of undenatured ethanol, process 4.0 million gallons of denaturant, receive 814,600 tons of grain, and loadout 221,920 tons of dry distiller's grain with solubles (DDGS) or modified distiller's grains with solubles (MDGS) per year. Operations at the facility include grain receiving, milling, fermentation, distillation, dehydration to remove residual water, denaturing (adding gasoline or a similar denaturant), storage and loadout to trucks. Byproducts, DDGS, MDGS, wetcake, corn oil, and Liquid CO<sub>2</sub> are also produced, stored onsite, and shipped out by truck.

POET is required to have a Part 70 permit and has taken limits to avoid Prevention of Significant Deterioration (PSD) permitting thresholds. Pollutants emitted include particulate matter (PM), particulate matter smaller than 10 microns (PM<sub>10</sub>), particulate matter smaller than 2.5 microns (PM<sub>2.5</sub>), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), hazardous air pollutants (HAP), and greenhouse gases (GHG, primarily carbon dioxide). Sources of emissions from the facility include: grain receiving and handling, milling, fermentation, distillation, DDGS & wetcake production, storage and handling, natural gas combustion, product and denaturant storage and loadout, leaks from piping connections, cooling towers, and truck traffic.

A regenerative thermal oxidizer (RTO) controls VOC and HAP emissions from fermentation process, DDGS drying and other processes. Wet scrubbers control VOC and HAP emissions from the fermentation process and the distillation processes. Baghouses control PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from grain and DDGS handling and processing sources. A flare controls VOC and HAP emissions from the ethanol loadout process. The large product storage tanks are equipped with internal floating roofs to control VOCs. Emissions from equipment leaks are controlled through an inspection and maintenance program.

This permit action also includes a reopening to reset water flow and additive flow application rates for TREA 19 under operating scenario 2. There is also a major amendment to incorporate SO<sub>2</sub> limits to comply with National Ambient Air Quality Standards (NAAQS).

#### 4. Summary of subject items

| SI ID:<br>Description                 | Relationship<br>type | Related SI ID:<br>Description                                                                                                                                                                  |
|---------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TFAC 1: POET<br>Biorefining - Preston |                      |                                                                                                                                                                                                |
| ACTV 3: All IAs                       |                      |                                                                                                                                                                                                |
| COMG 4: Boiler and<br>Dryer Fuel Use  | has members          | EQUI 9, EQUI<br>14, EQUI 20,<br>EQUI 61, STRU<br>1, STRU 22,<br>STRU 34, STRU<br>57                                                                                                            |
| COMG 12: Grain<br>Milling             | has members          | STRU 29, STRU<br>30, STRU 31,<br>STRU 32, STRU<br>58                                                                                                                                           |
| COMG 13: HAP Limit                    | has members          | EQUI 9, EQUI<br>14, STRU 1,<br>STRU 8, STRU<br>13, STRU 20,<br>STRU 22, STRU<br>34, STRU 57,<br>TREA 14, TREA<br>17, TREA 19,<br>TREA 25, TREA<br>27                                           |
| COMG 14:<br>Fermentation Scrubber     | has members          | EQUI 12, EQUI<br>54, EQUI 55,<br>EQUI 56, EQUI<br>57, EQUI 58,<br>EQUI 59, EQUI<br>60, EQUI 63,<br>EQUI 64, EQUI<br>65, EQUI 66,<br>EQUI 205,<br>EQUI 206,<br>EQUI 236,<br>EQUI 237,<br>STRU 8 |
| COMG 15: Distillation<br>Scrubber     | has members          | EQUI 4, EQUI<br>6, EQUI 13,<br>EQUI 17, EQUI<br>53, EQUI 62,<br>EQUI 68, EQUI<br>69, EQUI 70,<br>EQUI 194,<br>EQUI 207,<br>EQUI 217,<br>EQUI 226,<br>EQUI 227,<br>EQUI 228,                    |

| SI ID:<br>Description             | Relationship<br>type | Related SI ID:<br>Description                                                                                                                                                                                                        |
|-----------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                      | EQUI 229,<br>EQUI 230,<br>EQUI 231,<br>STRU 13                                                                                                                                                                                       |
| COMG 16: NSPS DD                  | has members          | EQUI 1, EQUI<br>2, EQUI 3,<br>EQUI 16, EQUI<br>28, EQUI 32,<br>EQUI 33, EQUI<br>180, EQUI 181,<br>EQUI 182,<br>EQUI 183,<br>EQUI 184,<br>EQUI 185,<br>EQUI 186,<br>EQUI 187,<br>EQUI 188,<br>EQUI 189,<br>EQUI 190,<br>EQUI 191      |
| COMG 17: DDGS Silo                | has members          | EQUI 11, EQUI<br>83, EQUI 198,<br>STRU 17                                                                                                                                                                                            |
| COMG 18: Grain<br>Handling Pit #1 | has members          | EQUI 1, EQUI<br>2, EQUI 3,<br>EQUI 15, EQUI<br>16, EQUI 47,<br>EQUI 48, EQUI<br>49, EQUI 50,<br>EQUI 51, EQUI<br>52, EQUI 180,<br>EQUI 181,<br>EQUI 182,<br>EQUI 183,<br>EQUI 184,<br>EQUI 185,<br>EQUI 186,<br>EQUI 187,<br>STRU 33 |
| COMG 19: Receiving<br>Pit #2      | has members          | EQUI 28, EQUI<br>29, EQUI 30,<br>EQUI 31, EQUI<br>32, EQUI 33,<br>EQUI 188,<br>EQUI 189,<br>EQUI 190,<br>EQUI 191,<br>STRU 23                                                                                                        |

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| SI ID:<br>Description              | Relationship<br>type | Related SI ID:<br>Description                                                                                                                                                                                                                                                               |
|------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COMG 20: Centrifuges to Atmosphere | has members          | EQUI 214,<br>EQUI 215,<br>EQUI 216,<br>STRU 41                                                                                                                                                                                                                                              |
| COMG 21: 3-Chambered RTO           | has members          | EQUI 12, EQUI 20, EQUI 54,<br>EQUI 55, EQUI 56, EQUI 57,<br>EQUI 58, EQUI 59, EQUI 60,<br>EQUI 61, EQUI 63, EQUI 64,<br>EQUI 65, EQUI 66, EQUI 195,<br>EQUI 196, EQUI 197,<br>EQUI 203, EQUI 205,<br>EQUI 206, EQUI 211,<br>EQUI 214, EQUI 215,<br>EQUI 216, EQUI 236,<br>EQUI 237, STRU 22 |
| COMG 22: RTO 2                     | has members          | EQUI 12, EQUI 20, EQUI 54,<br>EQUI 55, EQUI 56, EQUI 57,<br>EQUI 58, EQUI 59, EQUI 60,<br>EQUI 61, EQUI 63, EQUI 64,<br>EQUI 65, EQUI 66, EQUI 195,<br>EQUI 196, EQUI 197,<br>EQUI 203, EQUI 205,<br>EQUI 206, EQUI 211,<br>EQUI 214, EQUI 215,<br>EQUI 216, EQUI 236,<br>EQUI 237, STRU 57 |
| COMG 23: Hammermill #1             | has members          | EQUI 24, EQUI 96, EQUI 97,<br>EQUI 193,                                                                                                                                                                                                                                                     |

| SI ID:<br>Description              | Relationship<br>type | Related SI ID:<br>Description                                          |
|------------------------------------|----------------------|------------------------------------------------------------------------|
|                                    |                      | EQUI 220,<br>EQUI 233,<br>STRU 29                                      |
| COMG 24: Hammermill #2             | has members          | EQUI 25, EQUI 96, EQUI 97,<br>EQUI 193, EQUI 220,<br>EQUI 233, STRU 29 |
| COMG 25: Hammermill #3             | has members          | EQUI 26, EQUI 96, EQUI 97,<br>EQUI 193, EQUI 222,<br>EQUI 233, STRU 31 |
| COMG 26: Hammermill #4             | has members          | EQUI 27, EQUI 96, EQUI 97,<br>EQUI 193, EQUI 223,<br>EQUI 233, STRU 32 |
| COMG 27: Hammermill #5             | has members          | EQUI 233,<br>EQUI 234,<br>EQUI 235,<br>STRU 58                         |
| EQUI 1: Grain Receiving Pit 1      | sends to             | STRU 33: Grain Handling Pit #1 (TREA15)                                |
| EQUI 1: Grain Receiving Pit 1      | is controlled by     | TREA 15: Grain Receiving #1                                            |
| EQUI 2: Grain Receiving Elevator 1 | sends to             | STRU 33: Grain Handling Pit #1 (TREA15)                                |
| EQUI 2: Grain Receiving Elevator 1 | is controlled by     | TREA 15: Grain Receiving #1                                            |
| EQUI 3: Scalper                    | sends to             | STRU 33: Grain Handling Pit #1 (TREA15)                                |
| EQUI 3: Scalper                    | is controlled by     | TREA 15: Grain Receiving #1                                            |
| EQUI 4: Molecular Sieves #1        | sends to             | STRU 13: Distillation Scrubber (TREA17)                                |
| EQUI 4: Molecular Sieves #1        | is controlled by     | TREA 17: Packed-Gas Adsorption Column                                  |
| EQUI 5: DDGS Storage Building      |                      |                                                                        |

| SI ID:<br>Description                  | Relationship<br>type | Related SI ID:<br>Description                        |
|----------------------------------------|----------------------|------------------------------------------------------|
| EQUI 6: Evaporator                     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17)     |
| EQUI 6: Evaporator                     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 8: DDGS Loadout<br>Elevator       |                      |                                                      |
| EQUI 9: Boiler #1                      | sends to             | STRU 34:<br>Boiler #1                                |
| EQUI 11: DDGS Silo                     | sends to             | STRU 17: DDGS<br>Silo (TREA20)                       |
| EQUI 11: DDGS Silo                     | is controlled<br>by  | TREA 20: Silo<br>Baghouse                            |
| EQUI 12: Fermenter #6                  | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 12: Fermenter #6                  | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 12: Fermenter #6                  | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 12: Fermenter #6                  | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 12: Fermenter #6                  | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 12: Fermenter #6                  | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 12: Fermenter #6                  | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 13: Rectifier                     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17)     |
| EQUI 13: Rectifier                     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 14: Boiler #2                     | sends to             | STRU 1: Boiler<br>#2                                 |
| EQUI 15: Grain<br>Receiving Elevator 2 | sends to             | STRU 33: Grain<br>Handling Pit #1                    |

| SI ID:<br>Description                       | Relationship<br>type | Related SI ID:<br>Description                    |
|---------------------------------------------|----------------------|--------------------------------------------------|
|                                             |                      | (TREA15)                                         |
| EQUI 15: Grain<br>Receiving Elevator 2      | is controlled<br>by  | TREA 15: Grain<br>Receiving #1                   |
| EQUI 16: Bin Loading<br>Conveyor 1          | sends to             | STRU 33: Grain<br>Handling Pit #1<br>(TREA15)    |
| EQUI 16: Bin Loading<br>Conveyor 1          | is controlled<br>by  | TREA 15: Grain<br>Receiving #1                   |
| EQUI 17: Beer Stripper<br>#2                | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 17: Beer Stripper<br>#2                | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 20: DDGS Dryer<br>#1 with Multicyclone | sends to             | STRU 9: Rotary<br>Dryer Vent to<br>Atmosphere    |
| EQUI 20: DDGS Dryer<br>#1 with Multicyclone | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)         |
| EQUI 20: DDGS Dryer<br>#1 with Multicyclone | sends to             | STRU 57: RTO<br>2 Stack                          |
| EQUI 20: DDGS Dryer<br>#1 with Multicyclone | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                  |
| EQUI 20: DDGS Dryer<br>#1 with Multicyclone | is controlled<br>by  | TREA 27: RTO<br>2                                |
| EQUI 23: Fluid Bed<br>Cooler                | sends to             | STRU 20: Fluid<br>Bed CE Stack<br>(TREA22)       |
| EQUI 23: Fluid Bed<br>Cooler                | is controlled<br>by  | TREA 22: Fluid<br>Bed Baghouse                   |
| EQUI 24: Hammermill<br>1                    | sends to             | STRU 29:<br>Hammermill<br>#1 (TREA7)             |
| EQUI 24: Hammermill<br>1                    | is controlled<br>by  | TREA 7:<br>Hammermill<br>#1                      |
| EQUI 25: Hammermill<br>2                    | sends to             | STRU 30:<br>Hammermill<br>#2 (TREA8)             |
| EQUI 25: Hammermill<br>2                    | is controlled<br>by  | TREA 8:<br>Hammermill<br>#2                      |
| EQUI 26: Hammermill<br>3                    | sends to             | STRU 31:<br>Hammermill<br>#3 (TREA9)             |
| EQUI 26: Hammermill                         | is controlled        | TREA 9:                                          |



| SI ID:<br>Description                          | Relationship<br>type | Related SI ID:<br>Description      |
|------------------------------------------------|----------------------|------------------------------------|
| 3                                              | by                   | Hammermill #3                      |
| EQUI 27: Hammermill 4                          | sends to             | STRU 32: Hammermill #4 (TREA10)    |
| EQUI 27: Hammermill 4                          | is controlled by     | TREA 10: Hammermill #4             |
| EQUI 28: Grain Receiving Pit 2                 | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 28: Grain Receiving Pit 2                 | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 29: Grain Storage Bin 7                   | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 29: Grain Storage Bin 7                   | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 30: Grain Storage Bin 8                   | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 30: Grain Storage Bin 8                   | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 31: Grain Storage Bin 9                   | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 31: Grain Storage Bin 9                   | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 32: Hi-Roller Bin Loading Conveyor 1      | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 32: Hi-Roller Bin Loading Conveyor 1      | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 33: Hi-Roller Bin Unloading Conveyor 1    | sends to             | STRU 23: Receiving Pit #2 (TREA11) |
| EQUI 33: Hi-Roller Bin Unloading Conveyor 1    | is controlled by     | TREA 11: Grain Receiving #2        |
| EQUI 34: 200 Proof Ethanol Storage Tank (T804) |                      |                                    |
| EQUI 35: 200 Proof Ethanol Storage Tank (T806) |                      |                                    |
| EQUI 36: 190 Proof Ethanol Storage Tank        |                      |                                    |
| EQUI 37: 200 Proof Ethanol Storage Tank (T803) |                      |                                    |
| EQUI 38: Denaturant                            |                      |                                    |

| SI ID:<br>Description            | Relationship<br>type         | Related SI ID:<br>Description               |
|----------------------------------|------------------------------|---------------------------------------------|
| Tank (T802)                      |                              |                                             |
| EQUI 47: Grain Storage Bin 1     | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 47: Grain Storage Bin 1     | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 48: Grain Storage Bin 2     | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 48: Grain Storage Bin 2     | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 49: Grain Storage Bin 3     | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 49: Grain Storage Bin 3     | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 50: Grain Storage Bin 4     | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 50: Grain Storage Bin 4     | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 51: Grain Storage Bin 5     | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 51: Grain Storage Bin 5     | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 52: Grain Bin 6 (Surge Bin) | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15)     |
| EQUI 52: Grain Bin 6 (Surge Bin) | is controlled by             | TREA 15: Grain Receiving #1                 |
| EQUI 53: Beer Stripper #1        | sends to                     | STRU 13: Distillation Scrubber (TREA17)     |
| EQUI 53: Beer Stripper #1        | is controlled by             | TREA 17: Packed-Gas Adsorption Column       |
| EQUI 54: Fermenter #1            | sends to                     | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 54: Fermenter #1            | sends to                     | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 54: Fermenter #1            | sends to                     | STRU 57: RTO 2 Stack                        |
| EQUI 54: Fermenter #1            | is controlled in parallel by | TREA 14: Thermal                            |

| SI ID:<br>Description | Relationship<br>type            | Related SI ID:<br>Description                        |
|-----------------------|---------------------------------|------------------------------------------------------|
|                       |                                 | Oxidizer                                             |
| EQUI 54: Fermenter #1 | is controlled<br>in parallel by | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 54: Fermenter #1 | is controlled<br>by             | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 54: Fermenter #1 | is controlled<br>in parallel by | TREA 27: RTO<br>2                                    |
| EQUI 55: Fermenter #2 | sends to                        | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 55: Fermenter #2 | sends to                        | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 55: Fermenter #2 | sends to                        | STRU 57: RTO<br>2 Stack                              |
| EQUI 55: Fermenter #2 | is controlled<br>by             | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 55: Fermenter #2 | is controlled<br>by             | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 55: Fermenter #2 | is controlled<br>by             | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 55: Fermenter #2 | is controlled<br>by             | TREA 27: RTO<br>2                                    |
| EQUI 56: Fermenter #7 | sends to                        | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 56: Fermenter #7 | sends to                        | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 56: Fermenter #7 | sends to                        | STRU 57: RTO<br>2 Stack                              |
| EQUI 56: Fermenter #7 | is controlled<br>by             | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 56: Fermenter #7 | is controlled<br>by             | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 56: Fermenter #7 | is controlled                   | TREA 25:                                             |

| SI ID:<br>Description | Relationship<br>type | Related SI ID:<br>Description                        |
|-----------------------|----------------------|------------------------------------------------------|
|                       | by                   | Packed-Gas<br>Adsorption<br>Column                   |
| EQUI 56: Fermenter #7 | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 57: Beer Well    | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 57: Beer Well    | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 57: Beer Well    | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 57: Beer Well    | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 57: Beer Well    | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 57: Beer Well    | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 57: Beer Well    | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 58: Fermenter #3 | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 58: Fermenter #3 | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 58: Fermenter #3 | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 58: Fermenter #3 | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 58: Fermenter #3 | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 58: Fermenter #3 | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 58: Fermenter #3 | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 59: Fermenter #4 | sends to             | STRU 8:                                              |

| SI ID:<br>Description                       | Relationship<br>type | Related SI ID:<br>Description                        |
|---------------------------------------------|----------------------|------------------------------------------------------|
|                                             |                      | Fermentation<br>Scrubber<br>(TREA19 & 25)            |
| EQUI 59: Fermenter #4                       | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 59: Fermenter #4                       | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 59: Fermenter #4                       | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 59: Fermenter #4                       | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 59: Fermenter #4                       | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 59: Fermenter #4                       | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 60: Fermenter #5                       | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 60: Fermenter #5                       | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 60: Fermenter #5                       | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 60: Fermenter #5                       | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 60: Fermenter #5                       | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 60: Fermenter #5                       | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 60: Fermenter #5                       | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 61: DDGS Dryer<br>#2 with Multicyclone | sends to             | STRU 21: Ring<br>Dryer Vent to<br>Atmosphere         |
| EQUI 61: DDGS Dryer<br>#2 with Multicyclone | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 61: DDGS Dryer                         | sends to             | STRU 57: RTO                                         |

| SI ID:<br>Description                       | Relationship<br>type | Related SI ID:<br>Description                        |
|---------------------------------------------|----------------------|------------------------------------------------------|
| #2 with Multicyclone                        |                      | 2 Stack                                              |
| EQUI 61: DDGS Dryer<br>#2 with Multicyclone | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 61: DDGS Dryer<br>#2 with Multicyclone | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 62: Side Stripper                      | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17)     |
| EQUI 62: Side Stripper                      | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 63: Fermenter #8                       | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 63: Fermenter #8                       | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 63: Fermenter #8                       | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 63: Fermenter #8                       | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 63: Fermenter #8                       | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 63: Fermenter #8                       | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 63: Fermenter #8                       | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 64: Fermenter #9                       | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 64: Fermenter #9                       | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 64: Fermenter #9                       | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 64: Fermenter #9                       | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 64: Fermenter #9                       | is controlled<br>by  | TREA 19:<br>Packed-Gas                               |

| SI ID:<br>Description  | Relationship<br>type | Related SI ID:<br>Description               |
|------------------------|----------------------|---------------------------------------------|
|                        |                      | Adsorption Column                           |
| EQUI 64: Fermenter #9  | is controlled by     | TREA 25: Packed-Gas Adsorption Column       |
| EQUI 64: Fermenter #9  | is controlled by     | TREA 27: RTO 2                              |
| EQUI 65: Fermenter #10 | sends to             | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 65: Fermenter #10 | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 65: Fermenter #10 | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 65: Fermenter #10 | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 65: Fermenter #10 | is controlled by     | TREA 19: Packed-Gas Adsorption Column       |
| EQUI 65: Fermenter #10 | is controlled by     | TREA 25: Packed-Gas Adsorption Column       |
| EQUI 65: Fermenter #10 | is controlled by     | TREA 27: RTO 2                              |
| EQUI 66: Fermenter #11 | sends to             | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 66: Fermenter #11 | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 66: Fermenter #11 | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 66: Fermenter #11 | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 66: Fermenter #11 | is controlled by     | TREA 19: Packed-Gas Adsorption Column       |
| EQUI 66: Fermenter #11 | is controlled by     | TREA 25: Packed-Gas Adsorption Column       |

| SI ID:<br>Description                         | Relationship<br>type | Related SI ID:<br>Description           |
|-----------------------------------------------|----------------------|-----------------------------------------|
| EQUI 66: Fermenter #11                        | is controlled by     | TREA 27: RTO 2                          |
| EQUI 67: Ethanol Loading Rack #1              | sends to             | STRU 16: Flare (TREA6)                  |
| EQUI 67: Ethanol Loading Rack #1              | is controlled by     | TREA 6: Flaring                         |
| EQUI 68: Slurry Tank                          | sends to             | STRU 13: Distillation Scrubber (TREA17) |
| EQUI 68: Slurry Tank                          | is controlled by     | TREA 17: Packed-Gas Adsorption Column   |
| EQUI 69: Yeast Tank #1                        | sends to             | STRU 13: Distillation Scrubber (TREA17) |
| EQUI 69: Yeast Tank #1                        | is controlled by     | TREA 17: Packed-Gas Adsorption Column   |
| EQUI 70: 190 Production Rundown Tank          | sends to             | STRU 13: Distillation Scrubber (TREA17) |
| EQUI 70: 190 Production Rundown Tank          | is controlled by     | TREA 17: Packed-Gas Adsorption Column   |
| EQUI 71: Ethanol Loading Rack #2              | sends to             | STRU 16: Flare (TREA6)                  |
| EQUI 71: Ethanol Loading Rack #2              | is controlled by     | TREA 6: Flaring                         |
| EQUI 83: DDG Separating Cyclone               | sends to             | STRU 17: DDGS Silo (TREA20)             |
| EQUI 83: DDG Separating Cyclone               | is controlled by     | TREA 20: Silo Baghouse                  |
| EQUI 96: Hammermill Flour Collection Conveyor | sends to             | STRU 29: Hammermill #1 (TREA7)          |
| EQUI 96: Hammermill Flour Collection Conveyor | sends to             | STRU 30: Hammermill #2 (TREA8)          |
| EQUI 96: Hammermill Flour Collection Conveyor | sends to             | STRU 31: Hammermill #3 (TREA9)          |
| EQUI 96: Hammermill Flour Collection Conveyor | sends to             | STRU 32: Hammermill #4 (TREA10)         |

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| SI ID:<br>Description                         | Relationship<br>type         | Related SI ID:<br>Description           |
|-----------------------------------------------|------------------------------|-----------------------------------------|
| EQUI 96: Hammermill Flour Collection Conveyor | is controlled by             | TREA 7: Hammermill #1                   |
| EQUI 96: Hammermill Flour Collection Conveyor | is controlled by             | TREA 8: Hammermill #2                   |
| EQUI 96: Hammermill Flour Collection Conveyor | is controlled by             | TREA 9: Hammermill #3                   |
| EQUI 96: Hammermill Flour Collection Conveyor | is controlled by             | TREA 10: Hammermill #4                  |
| EQUI 97: Hammermill Feed Conveyor             | sends to                     | STRU 29: Hammermill #1 (TREA7)          |
| EQUI 97: Hammermill Feed Conveyor             | sends to                     | STRU 30: Hammermill #2 (TREA8)          |
| EQUI 97: Hammermill Feed Conveyor             | sends to                     | STRU 31: Hammermill #3 (TREA9)          |
| EQUI 97: Hammermill Feed Conveyor             | sends to                     | STRU 32: Hammermill #4 (TREA10)         |
| EQUI 97: Hammermill Feed Conveyor             | is controlled in parallel by | TREA 7: Hammermill #1                   |
| EQUI 97: Hammermill Feed Conveyor             | is controlled in parallel by | TREA 8: Hammermill #2                   |
| EQUI 97: Hammermill Feed Conveyor             | is controlled in parallel by | TREA 9: Hammermill #3                   |
| EQUI 97: Hammermill Feed Conveyor             | is controlled in parallel by | TREA 10: Hammermill #4                  |
| EQUI 177: DDGS Reclaim Pit                    |                              |                                         |
| EQUI 179: DDGS Truck Loadout Spout            |                              |                                         |
| EQUI 180: Grain Receiving Conveyor 1          | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 180: Grain Receiving Conveyor 1          | is controlled by             | TREA 15: Grain Receiving #1             |
| EQUI 181: Grain Receiving Conveyor 2          | sends to                     | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 181: Grain Receiving Conveyor 2          | is controlled by             | TREA 15: Grain Receiving #1             |

| SI ID:<br>Description                        | Relationship<br>type | Related SI ID:<br>Description           |
|----------------------------------------------|----------------------|-----------------------------------------|
| EQUI 182: Bin Loading Conveyor 2             | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 182: Bin Loading Conveyor 2             | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 183: Bin Loading Conveyor 3             | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 183: Bin Loading Conveyor 3             | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 184: Bin Unloading Conveyor 1           | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 184: Bin Unloading Conveyor 1           | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 185: Bin Unloading Conveyor 2           | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 185: Bin Unloading Conveyor 2           | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 186: Bin Unloading Conveyor 3           | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 186: Bin Unloading Conveyor 3           | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 187: Dust Conveyor 1                    | sends to             | STRU 33: Grain Handling Pit #1 (TREA15) |
| EQUI 187: Dust Conveyor 1                    | is controlled by     | TREA 15: Grain Receiving #1             |
| EQUI 188: Grain Receiving Conveyor 3         | sends to             | STRU 23: Receiving Pit #2 (TREA11)      |
| EQUI 188: Grain Receiving Conveyor 3         | is controlled by     | TREA 11: Grain Receiving #2             |
| EQUI 189: Grain Receiving Elevator 3         | sends to             | STRU 23: Receiving Pit #2 (TREA11)      |
| EQUI 189: Grain Receiving Elevator 3         | is controlled by     | TREA 11: Grain Receiving #2             |
| EQUI 190: Hi-Roller Bin Loading Conveyor 2   | sends to             | STRU 23: Receiving Pit #2 (TREA11)      |
| EQUI 190: Hi-Roller Bin Loading Conveyor 2   | is controlled by     | TREA 11: Grain Receiving #2             |
| EQUI 191: Hi-Roller Bin Unloading Conveyor 2 | sends to             | STRU 23: Receiving Pit #2 (TREA11)      |
| EQUI 191: Hi-Roller Bin Unloading Conveyor 2 | is controlled by     | TREA 11: Grain Receiving #2             |

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| SI ID:<br>Description              | Relationship<br>type         | Related SI ID:<br>Description           |
|------------------------------------|------------------------------|-----------------------------------------|
| EQUI 193: Hammermill Feed Elevator | sends to                     | STRU 29: Hammermill #1 (TREA7)          |
| EQUI 193: Hammermill Feed Elevator | sends to                     | STRU 30: Hammermill #2 (TREA8)          |
| EQUI 193: Hammermill Feed Elevator | sends to                     | STRU 31: Hammermill #3 (TREA9)          |
| EQUI 193: Hammermill Feed Elevator | sends to                     | STRU 32: Hammermill #4 (TREA10)         |
| EQUI 193: Hammermill Feed Elevator | is controlled in parallel by | TREA 7: Hammermill #1                   |
| EQUI 193: Hammermill Feed Elevator | is controlled in parallel by | TREA 8: Hammermill #2                   |
| EQUI 193: Hammermill Feed Elevator | is controlled in parallel by | TREA 9: Hammermill #3                   |
| EQUI 193: Hammermill Feed Elevator | is controlled in parallel by | TREA 10: Hammermill #4                  |
| EQUI 194: Molecular Sieves #2      | sends to                     | STRU 13: Distillation Scrubber (TREA17) |
| EQUI 194: Molecular Sieves #2      | is controlled by             | TREA 17: Packed-Gas Adsorption Column   |
| EQUI 195: Whole Stillage Tank      | sends to                     | STRU 22: 3-Chambered RTO (TREA14)       |
| EQUI 195: Whole Stillage Tank      | sends to                     | STRU 45: Whole Stillage Tank            |
| EQUI 195: Whole Stillage Tank      | sends to                     | STRU 57: RTO 2 Stack                    |
| EQUI 195: Whole Stillage Tank      | is controlled by             | TREA 14: Thermal Oxidizer               |
| EQUI 195: Whole Stillage Tank      | is controlled by             | TREA 27: RTO 2                          |
| EQUI 196: Thin Stillage Tank       | sends to                     | STRU 22: 3-Chambered RTO (TREA14)       |
| EQUI 196: Thin Stillage Tank       | sends to                     | STRU 46: Thin Stillage Tank             |

| SI ID:<br>Description                     | Relationship<br>type | Related SI ID:<br>Description               |
|-------------------------------------------|----------------------|---------------------------------------------|
| EQUI 196: Thin Stillage Tank              | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 196: Thin Stillage Tank              | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 196: Thin Stillage Tank              | is controlled by     | TREA 27: RTO 2                              |
| EQUI 197: Syrup Tank #1                   | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 197: Syrup Tank #1                   | sends to             | STRU 47: Syrup Tank #1                      |
| EQUI 197: Syrup Tank #1                   | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 197: Syrup Tank #1                   | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 197: Syrup Tank #1                   | is controlled by     | TREA 27: RTO 2                              |
| EQUI 198: DDGS Silo Unloading Conveyor    | sends to             | STRU 17: DDGS Silo (TREA20)                 |
| EQUI 198: DDGS Silo Unloading Conveyor    | is controlled by     | TREA 20: Silo Baghouse                      |
| EQUI 199: DDGS Flat Storage Conveyor      |                      |                                             |
| EQUI 200: DDGS Reclaim Pit Conveyor       |                      |                                             |
| EQUI 201: DDGS Truck Loadout Pit Conveyor |                      |                                             |
| EQUI 202: DDGS Portable Container Loadout |                      |                                             |
| EQUI 203: Corn Oil System                 | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 203: Corn Oil System                 | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 203: Corn Oil System                 | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 203: Corn Oil System                 | is controlled by     | TREA 27: RTO 2                              |
| EQUI 204: Flour Receiver                  | sends to             | STRU 43: Flour Receiver (Replacement)       |
| EQUI 205: Fermenter #12                   | sends to             | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 205: Fermenter                       | sends to             | STRU 22: 3-                                 |

| SI ID:<br>Description         | Relationship<br>type | Related SI ID:<br>Description                        |
|-------------------------------|----------------------|------------------------------------------------------|
| #12                           |                      | Chambered<br>RTO (TREA14)                            |
| EQUI 205: Fermenter<br>#12    | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 205: Fermenter<br>#12    | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 205: Fermenter<br>#12    | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 205: Fermenter<br>#12    | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 205: Fermenter<br>#12    | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 206: Fermenter<br>#13    | sends to             | STRU 8:<br>Fermentation<br>Scrubber<br>(TREA19 & 25) |
| EQUI 206: Fermenter<br>#13    | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |
| EQUI 206: Fermenter<br>#13    | sends to             | STRU 57: RTO<br>2 Stack                              |
| EQUI 206: Fermenter<br>#13    | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer                      |
| EQUI 206: Fermenter<br>#13    | is controlled<br>by  | TREA 19:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 206: Fermenter<br>#13    | is controlled<br>by  | TREA 25:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 206: Fermenter<br>#13    | is controlled<br>by  | TREA 27: RTO<br>2                                    |
| EQUI 207: Beer<br>Stripper #3 | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17)     |
| EQUI 207: Beer<br>Stripper #3 | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column       |
| EQUI 211: Syrup Tank<br>#2    | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14)             |

| SI ID:<br>Description                                   | Relationship<br>type | Related SI ID:<br>Description            |
|---------------------------------------------------------|----------------------|------------------------------------------|
| EQUI 211: Syrup Tank<br>#2                              | sends to             | STRU 48: Syrup<br>Tank #2                |
| EQUI 211: Syrup Tank<br>#2                              | sends to             | STRU 57: RTO<br>2 Stack                  |
| EQUI 211: Syrup Tank<br>#2                              | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer          |
| EQUI 211: Syrup Tank<br>#2                              | is controlled<br>by  | TREA 27: RTO<br>2                        |
| EQUI 212: Corrosion<br>Inhibitor Storage Tank<br>(T852) |                      |                                          |
| EQUI 213: Flour<br>Receiver                             | sends to             | STRU 18: Flour<br>receiver (CE<br>006)   |
| EQUI 214: Centrifuge 1                                  | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14) |
| EQUI 214: Centrifuge 1                                  | sends to             | STRU 41:<br>Centrifuges to<br>Atmosphere |
| EQUI 214: Centrifuge 1                                  | sends to             | STRU 57: RTO<br>2 Stack                  |
| EQUI 214: Centrifuge 1                                  | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer          |
| EQUI 214: Centrifuge 1                                  | is controlled<br>by  | TREA 27: RTO<br>2                        |
| EQUI 215: Centrifuge 2                                  | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14) |
| EQUI 215: Centrifuge 2                                  | sends to             | STRU 41:<br>Centrifuges to<br>Atmosphere |
| EQUI 215: Centrifuge 2                                  | sends to             | STRU 57: RTO<br>2 Stack                  |
| EQUI 215: Centrifuge 2                                  | is controlled<br>by  | TREA 14:<br>Thermal<br>Oxidizer          |
| EQUI 215: Centrifuge 2                                  | is controlled<br>by  | TREA 27: RTO<br>2                        |
| EQUI 216: Centrifuge 3                                  | sends to             | STRU 22: 3-<br>Chambered<br>RTO (TREA14) |
| EQUI 216: Centrifuge 3                                  | sends to             | STRU 41:<br>Centrifuges to<br>Atmosphere |
| EQUI 216: Centrifuge 3                                  | sends to             | STRU 57: RTO<br>2 Stack                  |
| EQUI 216: Centrifuge 3                                  | is controlled        | TREA 14:                                 |

| SI ID:<br>Description                          | Relationship<br>type | Related SI ID:<br>Description                    |
|------------------------------------------------|----------------------|--------------------------------------------------|
|                                                | by                   | Thermal<br>Oxidizer                              |
| EQUI 216: Centrifuge 3                         | is controlled<br>by  | TREA 27: RTO<br>2                                |
| EQUI 217: Yeast Tank<br>#2                     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 217: Yeast Tank<br>#2                     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 218: Emergency<br>Diesel Generator        | sends to             | STRU 42:<br>Generator                            |
| EQUI 219: Make-Up Air<br>Unit                  |                      |                                                  |
| EQUI 220: Hammermill<br>#1 Conveyor            | sends to             | STRU 29:<br>Hammermill<br>#1 (TREA7)             |
| EQUI 220: Hammermill<br>#1 Conveyor            | is controlled<br>by  | TREA 7:<br>Hammermill<br>#1                      |
| EQUI 221: Hammermill<br>#2 Conveyor            | sends to             | STRU 30:<br>Hammermill<br>#2 (TREA8)             |
| EQUI 221: Hammermill<br>#2 Conveyor            | is controlled<br>by  | TREA 8:<br>Hammermill<br>#2                      |
| EQUI 222: Hammermill<br>#3 Conveyor            | sends to             | STRU 31:<br>Hammermill<br>#3 (TREA9)             |
| EQUI 222: Hammermill<br>#3 Conveyor            | is controlled<br>by  | TREA 9:<br>Hammermill<br>#3                      |
| EQUI 223: Hammermill<br>#4 Conveyor            | sends to             | STRU 32:<br>Hammermill<br>#4 (TREA10)            |
| EQUI 223: Hammermill<br>#4 Conveyor            | is controlled<br>by  | TREA 10:<br>Hammermill<br>#4                     |
| EQUI 225: DDGS<br>Storage Building<br>Handling |                      |                                                  |
| EQUI 226: Distillation<br>Unit #1              | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 226: Distillation<br>Unit #1              | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption             |

| SI ID:<br>Description                 | Relationship<br>type | Related SI ID:<br>Description                    |
|---------------------------------------|----------------------|--------------------------------------------------|
|                                       |                      | Column                                           |
| EQUI 227: Distillation<br>Unit #2     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 227: Distillation<br>Unit #2     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 228: Distillation<br>Unit #3     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 228: Distillation<br>Unit #3     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 229: Distillation<br>Unit #4     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 229: Distillation<br>Unit #4     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 230: Distillation<br>Unit #5     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 230: Distillation<br>Unit #5     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 231: Distillation<br>Unit #6     | sends to             | STRU 13:<br>Distillation<br>Scrubber<br>(TREA17) |
| EQUI 231: Distillation<br>Unit #6     | is controlled<br>by  | TREA 17:<br>Packed-Gas<br>Adsorption<br>Column   |
| EQUI 233: Bin<br>Unloading Conveyor 5 | sends to             | STRU 29:<br>Hammermill<br>#1 (TREA7)             |
| EQUI 233: Bin<br>Unloading Conveyor 5 | sends to             | STRU 30:<br>Hammermill<br>#2 (TREA8)             |
| EQUI 233: Bin<br>Unloading Conveyor 5 | sends to             | STRU 31:<br>Hammermill<br>#3 (TREA9)             |



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| SI ID:<br>Description              | Relationship<br>type | Related SI ID:<br>Description               |
|------------------------------------|----------------------|---------------------------------------------|
| EQUI 233: Bin Unloading Conveyor 5 | sends to             | STRU 32: Hammermill #4 (TREA10)             |
| EQUI 233: Bin Unloading Conveyor 5 | sends to             | STRU 58: Hammermill #5 Stack                |
| EQUI 233: Bin Unloading Conveyor 5 | is controlled by     | TREA 7: Hammermill #1                       |
| EQUI 233: Bin Unloading Conveyor 5 | is controlled by     | TREA 8: Hammermill #2                       |
| EQUI 233: Bin Unloading Conveyor 5 | is controlled by     | TREA 9: Hammermill #3                       |
| EQUI 233: Bin Unloading Conveyor 5 | is controlled by     | TREA 10: Hammermill #4                      |
| EQUI 233: Bin Unloading Conveyor 5 | is controlled by     | TREA 26: Hammermill 5 Baghouse              |
| EQUI 234: Hammermill 5             | sends to             | STRU 58: Hammermill #5 Stack                |
| EQUI 234: Hammermill 5             | is controlled by     | TREA 26: Hammermill 5 Baghouse              |
| EQUI 235: Hammermill #5 Conveyor   | sends to             | STRU 58: Hammermill #5 Stack                |
| EQUI 235: Hammermill #5 Conveyor   | is controlled by     | TREA 26: Hammermill 5 Baghouse              |
| EQUI 236: Fermenter #14            | sends to             | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 236: Fermenter #14            | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 236: Fermenter #14            | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 236: Fermenter #14            | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 236: Fermenter #14            | is controlled by     | TREA 19: Packed-Gas Adsorption Column       |
| EQUI 236: Fermenter #14            | is controlled by     | TREA 25:                                    |

| SI ID:<br>Description                                                 | Relationship<br>type | Related SI ID:<br>Description               |
|-----------------------------------------------------------------------|----------------------|---------------------------------------------|
| #14                                                                   | by                   | Packed-Gas Adsorption Column                |
| EQUI 236: Fermenter #14                                               | is controlled by     | TREA 27: RTO 2                              |
| EQUI 237: Fermenter #15                                               | sends to             | STRU 8: Fermentation Scrubber (TREA19 & 25) |
| EQUI 237: Fermenter #15                                               | sends to             | STRU 22: 3-Chambered RTO (TREA14)           |
| EQUI 237: Fermenter #15                                               | sends to             | STRU 57: RTO 2 Stack                        |
| EQUI 237: Fermenter #15                                               | is controlled by     | TREA 14: Thermal Oxidizer                   |
| EQUI 237: Fermenter #15                                               | is controlled by     | TREA 19: Packed-Gas Adsorption Column       |
| EQUI 237: Fermenter #15                                               | is controlled by     | TREA 25: Packed-Gas Adsorption Column       |
| EQUI 237: Fermenter #15                                               | is controlled by     | TREA 27: RTO 2                              |
| FUGI 1: Truck Traffic - Paved Roads                                   |                      |                                             |
| FUGI 7: Miscellaneous VOC Fugitives (non-tank farm) - Equipment Leaks |                      |                                             |
| FUGI 12: Wet Cake Production - Material Handling/Transfer/Storage     |                      |                                             |
| FUGI 13: Tank Farm Fugitive VOCs - Equipment Leaks                    |                      |                                             |
| FUGI 15: Cooling Tower 1                                              |                      |                                             |
| FUGI 16: Cooling Tower 2                                              |                      |                                             |
| FUGI 20: Fermenter and Beerwell Leaks (non-LDAR)                      |                      |                                             |
| FUGI 21: Brewery Waste Receiving                                      |                      |                                             |
| STRU 1: Boiler #2                                                     |                      |                                             |

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| SI ID:<br>Description                       | Relationship<br>type | Related SI ID:<br>Description |
|---------------------------------------------|----------------------|-------------------------------|
| STRU 8: Fermentation Scrubber (TREA19 & 25) |                      |                               |
| STRU 9: Rotary Dryer Vent to Atmosphere     |                      |                               |
| STRU 13: Distillation Scrubber (TREA17)     |                      |                               |
| STRU 16: Flare (TREA6)                      |                      |                               |
| STRU 17: DDGS Silo (TREA20)                 |                      |                               |
| STRU 18: Flour receiver (CE 006)            |                      |                               |
| STRU 20: Fluid Bed CE Stack (TREA22)        |                      |                               |
| STRU 21: Ring Dryer Vent to Atmosphere      |                      |                               |
| STRU 22: 3-Chambered RTO (TREA14)           |                      |                               |
| STRU 23: Receiving Pit #2 (TREA11)          |                      |                               |
| STRU 29: Hammermill #1 (TREA7)              |                      |                               |
| STRU 30: Hammermill #2 (TREA8)              |                      |                               |
| STRU 31: Hammermill #3 (TREA9)              |                      |                               |
| STRU 32: Hammermill #4 (TREA10)             |                      |                               |
| STRU 33: Grain Handling Pit #1 (TREA15)     |                      |                               |
| STRU 34: Boiler #1                          |                      |                               |
| STRU 41: Centrifuges to Atmosphere          |                      |                               |
| STRU 42: Generator                          |                      |                               |
| STRU 43: Flour Receiver (Replacement)       |                      |                               |
| STRU 45: Whole Stillage Tank                |                      |                               |

| SI ID:<br>Description                 | Relationship<br>type | Related SI ID:<br>Description |
|---------------------------------------|----------------------|-------------------------------|
| STRU 46: Thin Stillage Tank           |                      |                               |
| STRU 47: Syrup Tank #1                |                      |                               |
| STRU 48: Syrup Tank #2                |                      |                               |
| STRU 57: RTO 2 Stack                  |                      |                               |
| STRU 58: Hammermill #5 Stack          |                      |                               |
| TREA 6: Flaring                       |                      |                               |
| TREA 7: Hammermill #1                 |                      |                               |
| TREA 8: Hammermill #2                 |                      |                               |
| TREA 9: Hammermill #3                 |                      |                               |
| TREA 10: Hammermill #4                |                      |                               |
| TREA 11: Grain Receiving #2           |                      |                               |
| TREA 14: Thermal Oxidizer             |                      |                               |
| TREA 15: Grain Receiving #1           |                      |                               |
| TREA 17: Packed-Gas Adsorption Column |                      |                               |
| TREA 19: Packed-Gas Adsorption Column |                      |                               |
| TREA 20: Silo Baghouse                |                      |                               |
| TREA 22: Fluid Bed Baghouse           |                      |                               |
| TREA 25: Packed-Gas Adsorption Column |                      |                               |
| TREA 26: Hammermill 5 Baghouse        |                      |                               |
| TREA 27: RTO 2                        |                      |                               |

## 5. Limits and other requirements

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TFAC 1</b>      | <b>POET Biorefining - Preston</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.1.1              | The Permittee must limit Production $\leq$ 80,000 million gallons per year 12-month rolling sum of undenatured ethanol production to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.1.2              | The Permittee must limit Process Throughput $\leq$ 4,000 million gallons per year 12-month rolling sum of denaturant loadout to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.3              | The Permittee must limit Process Throughput $\leq$ 814,600 tons per year 12-month rolling sum of grain received to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.1.4              | <p>The Permittee must limit Process Throughput <math>\leq</math> 221,920 tons per year 12-month rolling sum of dried distiller's grains with solubles (DDGS) and modified distiller's grains with solubles (MDGS) handled in the DDGS loadout equipment, to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>MDGS is subject to the same requirements as DDGS. The Permittee is not allowed to adjust the weight of DDGS or MDGS handled in the DDGS loadout equipment, as identified in the loadout receipts, to account for moisture content unless the permit contains specific provisions for monitoring, recordkeeping, and reporting the moisture content of the MDGS and DDGS. This limit does not apply to MDGS handled at the wetcake pad. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.1.5              | Daily Undenatured Ethanol Production Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the undenatured ethanol production in gallons for the previous day. This shall be based on flow meters of product exiting the molecular sieves. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                               |
| 5.1.6              | Daily Denaturant Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the denaturant throughput in gallons for the previous day. This shall be based on flow meters at the ethanol loadout rack. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.1.7              | Daily Grain Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the tons of grain received by the facility for the previous day. This shall be based on grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.1.8              | Daily DDGS and MDGS Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the tons of DDGS and MDGS Loadout by the facility for the previous day. This shall be based on loadout receipts. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1.9              | <p>Monthly Undenatured Ethanol Production Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following:</p> <ol style="list-style-type: none"> <li>1) The monthly gallons of undenatured ethanol produced during the previous month based on summing the daily undenatured ethanol production records, based on the volume of ethanol leaving the molecular sieves, for that month, and</li> <li>2) The 12-month rolling sum of undenatured ethanol production for the previous 12-month period by summing the monthly undenatured ethanol production records, based on the volume of ethanol leaving the molecular sieves, for the previous 12 months. [Minn. R. 7011.0800, subps. 4-5]</li> </ol> |
| 5.1.10             | <p>Monthly Denaturant Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following:</p> <ol style="list-style-type: none"> <li>1) The monthly gallons of denaturant throughput during the previous month based on summing the daily denaturant loadout records for that month, and</li> <li>2) The 12-month rolling sum of denaturant throughput for the previous 12-month period by summing the monthly denaturant loadout records for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</li> </ol>                                                                                                                                                                              |
| 5.1.11             | <p>Monthly Grain Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following:</p> <ol style="list-style-type: none"> <li>1) The monthly tons of grain received the previous month based on summing the daily grain receipts for that month, and</li> <li>2) The 12-month rolling sum of grain throughput for the previous 12-month period by summing the monthly grain receipts for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</li> </ol>                                                                                                                                                                                                                                 |
| 5.1.12             | <p>Monthly DDGS and MDGS Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following:</p> <ol style="list-style-type: none"> <li>1) The monthly tons of DDGS and MDGS loadout during the previous month based on summing the daily DDGS and MDGS loadout records for that month, and</li> <li>2) The 12-month rolling sum of DDGS and MDGS loadout for the previous 12-month period by summing the monthly DDGS and MDGS loadout data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</li> </ol>                                                                                                                                                                           |
| 5.1.13             | <p>Grain received by the facility shall only be used for production of ethanol and co-products by the Permittee at the POET Biorefining - Preston facility (ID No. 04500049). Grain is defined by 40 CFR 60.301 includes corn, wheat, sorghum, rice, rye, oats, barley or soybeans. All grain must be received at permitted receiving areas. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                |
| 5.1.14             | <p>The Permittee shall not use as ethanol feedstock any seed treated with neonicotinoid pesticide. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. Stat. 21.86, subd. 2(h)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.1.15             | <p>Outdoor handling and storage of grain and DDGS or MDGS is prohibited, unless the operation is described and authorized in this permit. Grain received must be unloaded only in the grain-receiving buildings and stored in grain silos or equivalent. Corn and/or other grains may not be unloaded and stockpiled or stored outdoors on the ground or any other surface or in any other area of the facility except the designated storage silos. This limitation does not apply to wet cake or modified distiller's grains with solubles (MDGS) with a moisture content greater than 40%. The Permittee must minimize the time that MDGS remains on the wetcake pad such that it does not become a source of particulate</p>           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | matter emissions. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.1.16             | Denaturant or gasoline received by the facility shall only be used as a denaturant of ethanol by the Permittee at the POET Biorefining - Preston facility (ID No. 04500049). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.1.17             | The Permittee must limit Process Throughput <= 20.8 million gallons per year 12-month rolling sum of brewery waste received to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.18             | Process Throughput: Daily Brewery Waste Recordkeeping. On each day of operation the Permittee must record and maintain a record of the total quantity of brewery waste received. This must be recorded in written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.1.19             | Process Throughput: Monthly Brewery Waste Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following:<br>1) The total gallons of brewery waste received for the previous calendar month using the daily records; and<br>2) The 12-month rolling sum of brewery waste received for the previous 12-month period by summing the monthly brewery waste records for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.1.20             | The Permittee must limit Process Throughput <= 375 trucks per day daily maximum for grain delivery. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.21             | Process Throughput: Grain Receiving Truck Traffic Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the number of trucks that delivered grain to the facility. This record must include the time of arrival and which grain receiving pit the truck delivered to. This must be recorded in written logs. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0200-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.22             | Process Flow Diagram: The Permittee must maintain an up to date process flow diagram of the facility. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.1.23             | Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices:<br><br>Appendix A. Insignificant Activities and General Applicable Requirements<br>Appendix B. 40 CFR pt. 60, subp. A - General Provisions<br>Appendix C. Fugitive Dust Control Plan<br>Appendix D. 40 CFR pt. 60, subp. IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines<br>Appendix E. 40 CFR pt. 60, subp. VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, and On or Before April 25, 2023<br>Appendix F. Ambient Air Boundary Control Strategy Plan Map<br>Appendix G. 40 CFR pt. 60, subp. Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023<br>Appendix H. Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations<br>Appendix I. 40 CFR pt. 60, subp. DD - Standards of Performance for Grain Elevators. [Minn. R. 7007.0800, subp. 2(A) & (B)] |
| 5.1.24             | General Public Preclusion Plan - Boundary Map                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | <p>The Permittee must use fencing, control access points, place restriction signage, and remote monitoring as specified in Appendix F to maintain control over the effective fence line.</p> <p>Appendix F to this permit is a map that depicts the boundary at which the access of the general public can be controlled and compliance with the National Ambient Air Quality Standards (NAAQS) can be demonstrated. This boundary has been defined as the "effective fence line". Appendix F identifies the forms of control the Permittee will use to restrict access to the general public along portions of the effective fence line. The general public does not include employees or other categories of people who have been directly authorized by the property owner to enter or remain on the property for a limited period of time and for a specific purpose. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>                                                                                                                                                                                                                                                                                                                                                                 |
| 5.1.25             | <p>General Public Preclusion Plan</p> <p>This Plan must, at a minimum, contain the following information:</p> <ol style="list-style-type: none"><li>1. A map of the facility that clearly displays the ambient air boundary. The map must indicate how access is precluded for each section of the boundary and must identify all access points (including roadways, power lines, rail spurs, etc.);</li><li>2. Locations where fencing will be implemented;</li><li>3. Restriction signage spacing (restriction signage may include notices such as "No Trespassing," "Private Property," "Do Not Enter," or "Restricted Area");</li><li>4. Location of remote monitoring devices;</li><li>5. Operation and maintenance requirements of remote monitoring software and devices;</li><li>6. Contingency plans for downtime for remote monitoring software and devices; and</li><li>7. A response plan for when breaches occur. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</li></ol>                                                                                                                                                                                                                                                                                                      |
| 5.1.26             | <p>Recordkeeping for Breaches of the Ambient Air Boundary</p> <p>Within three calendar days of each observed breach, the Permittee must document each instance that the ambient air boundary was breached by a member of the general public, including documenting the type, location, and duration of each breach. The Permittee must identify and, within a reasonable amount of time, implement measures to prevent future breaches, if necessary. A breach to the ambient boundary occurs when a member of the general public accesses property identified by the Permittee as non-ambient air.</p> <p>The observation of a breach may be direct or indirect. A direct observation includes witnessing a member of the general public on property identified as non-ambient air. Indirect observations rely on evidence of a breach, such as a cut fence, worn paths, motorized vehicle tracks, or other signs of disturbance by a member of the general public on property identified as non-ambient air.</p> <p>The Permittee must report each breach, including all steps taken or changes made to the General Public Preclusion Plan to prevent additional breaches, in the semiannual Deviations Report required by this permit. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p> |
| 5.1.27             | <p>General Public Preclusion Plan - Fencing:</p> <p>The Permittee must install and maintain fencing along ambient air boundary effective fence line as depicted in Appendix F. The Permittee must inspect the fence line once per quarter. The Permittee must maintain records of inspection and required maintenance of fence line. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subp. 5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 5.1.28             | General Public Preclusion Plan - Control of Access:<br>The Permittee must control access at any road, trail equal to or wider than 50 inches, and all abandoned railroad grades. The Permittee must secure these access points with a locked and/or monitored gate or other physical barrier precluding access by the general public. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                       |
| 5.1.29             | General Public Preclusion Plan - Remote Monitoring:<br>The Permittee must operate and maintain remote monitoring equipment to maintain the effective fence line as depicted in Appendix F. The Permittee must monitor at a minimum of once per day. Remote monitoring devices include but are not limited to fixed cameras and drone mounted cameras. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                       |
| 5.1.30             | The Permittee must clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology). [Minn. R. 7011.1005, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.1.31             | This permit establishes limits on the facility to keep it a minor source under New Source Review and NESHAPs. The Permittee cannot make any change at the source that would make the source a major source under New Source Review and NESHAPs until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                     |
| 5.1.32             | Equipment Labeling: The Permittee must permanently affix a unique number to each emissions unit for tracking purposes. Each number must correlate the unit to the appropriate Subject Item number used in this permit. The number can be affixed by placard, stencil, or other means. The number must be maintained so that it is readable and visible at all times from a safe distance. If equipment is added, it must be given a new unique number; numbers from replaced or removed equipment must not be reused. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                            |
| 5.1.33             | Equipment Inventory: The Permittee must maintain a written list of all emissions units and control equipment on site. The Permittee must update the list to include any replaced, modified, or new equipment prior to making the change.<br><br>The list must correlate the units to the Subject Item numbers used in this permit and must include the data on GI-04, GI-05B, GI-05C, and GI-05F. The date of construction must be the date the change was made for replaced, modified, or new equipment. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                        |
| 5.1.34             | The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0100, subp. 7(X), Minn. Stat. 116.385]                                                                                                                                                                                                                                                                                                                    |
| 5.1.35             | PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.<br><br>This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)] |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 5.1.36             | Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and recordkeeping specified in the fugitive dust control plan in Appendix C of this permit. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7009.0020, Minn. R. 7011.0150, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                       |
| 5.1.37             | The Permittee must comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance must be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.1.38             | Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.1.39             | The Permittee must at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them that are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. [Minn. R. 7007.0800, subp. 16(J)]                                                                                                                                                                                                                                                            |
| 5.1.40             | Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)] |
| 5.1.41             | Operation Changes: In any shutdown, breakdown, or deviation the Permittee must immediately or as soon as possible considering plant and personnel safety take all practical steps to modify operations to reduce the emission of any regulated air pollutant. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment are permitted to operate. [Minn. R. 7019.1000, subp. 4]                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.42             | Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.1.43             | Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.1.44             | Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.1.45             | The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.1.46             | Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.47             | Performance Test Notifications and Submittals:<br><br>Performance Test Notification and Plan: due 30 days before each Performance Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | <p>Performance Test Pre-test Meeting: due seven days before each Performance Test</p> <p>Performance Test Report: due 45 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>                                                                                                                                                                                                                                                                                                                                                                              |
| 5.1.48             | <p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's follow up compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]</p>                                                                                                                                                                                                                                                                           |
| 5.1.49             | <p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> <li>1. Calibrate or replace required monitoring equipment every 12 months; or</li> <li>2. Calibrate at the frequency stated in the manufacturer's specifications.</li> </ol> <p>For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]</p> |
| 5.1.50             | <p>Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]</p>                                                                                                                                                                                                                                                       |
| 5.1.51             | <p>Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]</p>                                                                                                                                                                                                      |
| 5.1.52             | <p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.1.53             | <p>If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]</p>                                                                      |
| 5.1.54             | <p>Shutdown Notifications: Notify the commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the Permittee does not have advance knowledge of the shutdown, the Permittee must notify the commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator must inform the commissioner of the cause of the shutdown and the estimated duration. The owner or operator must notify the commissioner when</p>          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                    | the shutdown is over. [Minn. R. 7019.1000, subp. 3]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.1.55             | <p>Breakdown Notifications: Notify the commissioner within 24 hours of a breakdown of more than one hour of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the Permittee must inform the commissioner of the cause of the breakdown and the estimated duration. The Permittee must notify the commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>                             |
| 5.1.56             | <p>Notification of Deviations Endangering Human Health or the Environment: Immediately after discovery of the deviation or immediately after when the deviation reasonably should have been discovered, notify the commissioner either orally or by e-mail, or telephone the state duty officer at 800-422-0798 or 651-649-5451, of any deviation from permit conditions that could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                            |
| 5.1.57             | <p>Notification of Deviations Endangering Human Health or the Environment Report: Within two working days of discovery, notify the commissioner in writing of any deviation from permit conditions that could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> <li>1. the cause of the deviation;</li> <li>2. the exact dates of the period of the deviation, if the deviation has been corrected;</li> <li>3. whether or not the deviation has been corrected;</li> <li>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and</li> <li>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]</li> </ol> |
| 5.1.58             | <p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p> <p>Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]</p>                                                                                                                                                                                       |
| 5.1.59             | <p>Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]</p>                                                                                                                                                                                                                                                                             |
| 5.1.60             | <p>Within 15 days of a request from the Commissioner, the Permittee must provide a complete summary of all performance tests required at the facility including the subject item, pollutant, most recent test date (if applicable), and the date of the next test in an approved format. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.1.61             | <p>Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.1.62             | <p>Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>COMG 4</b>      | <b>Boiler and Dryer Fuel Use</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.2.1              | <p>The Permittee must limit emissions of Nitrogen Oxides &lt;= 65.3 tons per year 52-week rolling sum.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.2.2              | Fuel Burned: natural gas only. [Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.2.3              | Weekly Fuel Usage Recordkeeping: On each week of operation, the Permittee shall calculate, record, and maintain records of the amount of natural gas combusted for each subject item in COMG 4 for the previous week. These records shall consist of purchase records, receipts, or fuel meter readings. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.2.4              | Weekly NOx Emissions Rolling Sum: On each week of operation, the Permittee must calculate and record the following: <p>1) The total amount of natural gas combusted in each subject item in COMG 4 for the previous calendar week based on the weekly fuel usage records for the previous 52 weeks;</p> <p>2) The NOx emissions for the previous week using the formulas specified below in COMG 4 of this permit; and</p> <p>3) The 52-week rolling sum of NOx emissions for the previous 52-week period by summing the weekly NOx emissions data for the previous 52-week period. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.2.5              | Weekly NOx Emissions Calculation: The Permittee shall calculate the weekly NOx emissions from the subject items in COMG 4 for the previous calendar week using the following equation: $\text{NOx} = ((A1 \times B1 \times 1020) + (A2 \times B2 \times 1020) + (A3 \times B3 \times 1020)) / 2000$ <p>Where:</p> <p>NOx = weekly NOx emissions; tons/week.</p> <p>A1 = NOx emission rate from the most recent performance test for EQUI 9 (Boiler 1). As of permit issuance, this is 0.04 lb/MMBtu; lb/MMBtu.</p> <p>A2 = NOx emission rate from the most recent performance test for EQUI 14 (Boiler 2). As of permit issuance, this is 0.04 lb/MMBtu; lb/MMBtu.</p> <p>A3 = NOx emission rate from the most recent performance test for STRU 22 (Dryers, and HRSG/TO). As of permit issuance, this is 0.066 lb/MMBtu; lb/MMBtu.</p> <p>B1 = weekly fuel usage for EQUI 9 (Boiler 1) based on the weekly fuel usage records; MMscf/week.</p> <p>B2 = weekly fuel usage for EQUI 14 (Boiler 2) based on the weekly fuel usage records; MMscf/week.</p> <p>B3 = weekly fuel usage for STRU 22 (EQUI 20, EQUI 61, TREA 14) based on the weekly fuel usage records; MMscf/week.</p> <p>1020 = natural gas conversion factor (1020 MMBtu per MMscf).</p> <p>2000 = conversion factor (2000 pounds per ton). [Minn. R. 7007.0800, subps. 4-5]</p> |
| <b>COMG 12</b>     | <b>Grain Milling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.3.1              | Combined Hammermill Short-term Process Throughput <= 81 tons per hour 3-hour average of combined flour throughput based on slurry density measurements (D4) , volumetric flow meters (V1-V3, W/F), pre-blend density measurements (D1) to be used in the calculations as detailed in the Protocol for Resetting Short-Term Process Throughput Limits. <p>The Permittee must maintain at the facility adequate volumetric flow monitoring records and density measurements to demonstrate continuous compliance with these operating condition limitations.</p> <p>The facility must use a continuous hard-copy recorder or data acquisition system to take and record</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | readings to comply with the process throughput limits as a 3-hour average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour averages. Missed readings and recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a, and must be reported. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.3.2              | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                          |
| 5.3.3              | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREAs 7-10 and 26.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li><li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding</li></ol> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.3.4              | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.3.5              | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.3.6              | <p>Monitoring and Recordkeeping Requirement for Short-Term Throughput Limit:</p> <p>The Permittee must monitor, record and maintain the following flow and density measurements, as needed to show compliance with a 3-hour block average, for use in calculating the combined flour throughput limit above:</p> <ol style="list-style-type: none"> <li>1. Pre-blend density measurements (D1) - either with the in-line density meter from the pre-blend tank to the slurry tank or a laboratory sample as described below.</li> <li>2. Slurry density measurements (D4) - either with an in-line slurry density meter leaving the slurry tank or laboratory sample as described below.</li> <li>3. Pre-Blend flow (V1) as measured by flow meter from Pre-Blend Tank to Slurry Tank</li> <li>4. City Water (Process water) flow (V2) as measured by flow meter from Process Water Tank to Slurry Tank</li> <li>5. Scrubber Water Flow (V3) as measured by flow meter from scrubbers to slurry tank. and</li> <li>6. Slurry Flow (V4) as measured by flow meters from slurry tank to fermentation tanks. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</li> </ol> |
| 5.3.7              | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 1 of 2)</p> <p>Step 1: Determine the Mass flow rate of the water sources (WSx) entering the slurry tank and the water to flour mix (W/F or mash) leaving the slurry tank using density measurements and volumetric flow readings and Equation 1 below.</p> <p>Equation 1: Mass Flow Rate (lb/min) = Density (lb/gal) x Volumetric Flow Rate (gal/min)</p> <p>WS1 = D1 x V1<br/> WS2 = D2 x V2<br/> WS3 = D3 x V3<br/> W/F = D4 X V4</p> <p>Where:</p> <p>WS1 = Water Source 1 (Pre-blend water) mass flow rate (lb/min)<br/> WS2 = Water Source 2 (City water makeup) mass flow rate (lb/min)<br/> WS3 = Water Source 3 (Water from scrubbers) mass flow rate (lb/min)<br/> W/F = Mass of Water/Flour Mix (lb/min)<br/> D1 = Density (lb/gal) of WS1 as measured by pre-blend water density measurements (either density meter or samples) from pre-blend tank to slurry tank.</p>                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | D2 = Density (lb/gal) of WS2 = 8.33 lb/gal (constant)<br>D3 = Density (lb/gal) of WS3 = 8.33 lb/gal (constant)<br>D4 = Density (lb/gal) of W/F as measured by slurry density measurements (either density meter or samples) leaving the slurry tank<br>V1 = Volumetric Flow rate of WS1 (gal/min) as measured by flow meter from Process Water Tank to Slurry Tank<br>V2 = Volumetric Flow rate of WS2 (gal/min) as measured by flow meter from Process Water Tank to Slurry Tank<br>V3 = Volumetric Flow rate of WS3 (gal/min) as measured by flow meter from scrubbers to slurry tank<br>V4 = Volumetric Flow rate of W/F (gal/min) as measured by flow meter leaving the slurry tank. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.3.8              | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 2 of 2)</p> <p>Step 2: Determine mass of flour using results of Equation 1 in Equation 2, and converting from lb/min to ton/hour</p> <p>Equation 2: Mass of Flour (ton/hour) = (W/F - (WS1+WS2+WS3)) x 60 min/hour / 2000 lbs/ton. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                           |
| 5.3.9              | Slurry Density (W/F) Based on Sampling. The Permittee may collect slurry samples leaving the slurry tank during any 3-hour period in lieu of relying upon the data from the slurry density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.3.10             | Pre-Blend Water Density (D1) Based on Sampling. The Permittee may collect pre-blend water samples leaving the pre-blend tank during any 3-hour period in lieu of relying upon the data from the pre-blend water density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>COMG 13</b>     | <b>HAP Limit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.4.1              | Requirements to conduct speciated HAPs performance testing and operate air pollution control equipment (as applicable) for COMG 13 HAP emitting sources are found in Section 5 and Section 6 of this permit under the following subject items in this permit: <ol style="list-style-type: none"> <li>1. COMG 14 and TREA 19/25 (Fermentation Scrubber)</li> <li>2. COMG 15 and TREA 17 (Distillation Scrubber)</li> <li>3. COMG 21 and TREA 14 (Regenerative Thermal Oxidizer)</li> <li>4. EQUI 23 (Fluid Bed Cooler) - vents to fabric filter (no HAP control)</li> <li>5. COMG 22 and TREA 27 (Regenerative Thermal Oxidizer)</li> </ol> HAP emissions from all other COMG 13 subject items are uncontrolled. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                      |
| 5.4.2              | <p>The following units will calculate HAP emissions using emission factors and Natural Gas usage.</p> <p>EQUI 9 (Industrial Boiler 1) / STRU 1<br/> EQUI 14 (Industrial Boiler 2) / STRU 34. [Minn. R. 7007.0800, subp. 2(A)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.4.3              | The Permittee must limit emissions of HAPs - Total <= 20.7 tons per year 12-month rolling sum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | calculated by the 15th day of each month for the previous 12-month period. This limit applies to the total HAP emissions from all associated items in COMG 13 venting to STRU 1, 8, 13, 22, 20, and 34. [Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.4.4              | The Permittee must limit emissions of Acetaldehyde $\leq 8.9$ tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period. This limit applies to the total emissions from all associated items in COMG 13 venting to STRU 8, 13, 22, 20 of Acetaldehyde. [Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.4.5              | <p>The Permittee shall use the following values for B# in lb/hr units in Equation 1 below:</p> <p>COMG 21 (RTO 1) (May 2024 Test)<br/>Acetaldehyde: 0.56<br/>Acrolein: 0.03<br/>Formaldehyde: 0.05<br/>Methanol: 0.08</p> <p>COMG 14 (Fermentation Scrubbers) (May 2024 Test)<br/>Acetaldehyde: 0.03<br/>Acrolein: 0.01<br/>Formaldehyde: 0.002<br/>Methanol: 0.003</p> <p>COMG 15 (Distillation Scrubber) (December 2023 Test)<br/>Acetaldehyde: 0.0010<br/>Acrolein: 0.0004<br/>Formaldehyde: 0.00017<br/>Methanol: 0.00005</p> <p>EQUI 23 (Fluid Bed) (May 2024 Test)<br/>Acetaldehyde: 0.06<br/>Acrolein: 0.06<br/>Formaldehyde: 0.005<br/>Methanol: 0.02</p> <p>The Permittee shall establish and reconfirm emission factors for these pollutants based on site-specific performance test data and use the factors to calculate actual emissions of these individual HAPs.</p> <p>Emission factors in lb/hr shall be reset upon subsequent performance test results for speciated HAPs (acetaldehyde, acrolein, formaldehyde and methanol) using EPA Method 18, Method 320 or other MPCA-approved test method at COMG 14, COMG 15, COMG 21, and EQUI 23. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.4.6              | <p>Monthly Recordkeeping - HAP Emissions: By the 15th of the month, the Permittee shall calculate and record the following as prescribed in Steps 1-7 below:</p> <p>Step 1) Monthly acetaldehyde, acrolein, formaldehyde, and methanol emissions from COMGs 14, 15, 21 and EQUI 23 during the previous calendar month using Equation 1.</p> <p>Equation 1: <math>H_p = ((A1c \times B1) + (A1u \times B1/(1-CE)) + (A2c \times B2) + (A2u \times B2/(1-CE)) \dots \text{etc.})/2000</math></p> <p>Where:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>Hp = Individual acetaldehyde, acrolein, formaldehyde, and methanol process emissions; tons/month<br/> A#c = Controlled HAP source (STRU or EQUI) operating hours (recorded under subject items COMGs 14, 15, 21 and EQUI 23) during the previous month when all applicable control equipment operating parameters were at or above the required minimum;<br/> B# = HAP controlled emission rate; lb/hr<br/> A#u = Controlled HAP source operating hours during the previous month when any applicable control equipment operating parameter was below the required minimum (recorded under subject items COMGs 14, 15, 21 and EQUI 23); hrs/month<br/> CE = decimal equivalent of control device percent control efficiency for the specific pollutant as defined below</p> <p>The Permittee shall use the following values for TREA in Equation 1:</p> <p>COMG 14/TREA 19/TREA 25:<br/> Acetaldehyde: 50%, Acrolein: 50%, Formaldehyde: 50%, Methanol: 50%</p> <p>COMG 15/TREA 17:<br/> Acetaldehyde: 50% Acrolein: 50%, Formaldehyde: 50%, Methanol: 50%</p> <p>COMG 21/TREA 14:<br/> Acetaldehyde: 95%, Acrolein: 95%, Formaldehyde: 95%, Methanol: 95%.</p> <p>For EQUI 23 (which is uncontrolled for HAPs),<br/> A#c is monthly operating hours and B# is the (uncontrolled) lb/hr emission rate determined by stack testing. In no instance shall a value be established for A#u for EQUI 23 because the unit does not have HAP emission control equipment.</p> <p>The Permittee shall establish and re-confirm emission factors for these pollutants based on site-specific performance test data and use the factors to calculate actual emissions of these individual HAPs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.4.7              | <p>Step 2) The natural gas combustion formaldehyde and hexane emissions (lb/month), for the previous calendar month using Equation 2.</p> <p>Equation 2: <math>H_c = (NG * EF) / 2000</math></p> <p>Where:<br/> Hc = Individual formaldehyde and hexane combustion emissions, tons/month<br/> NG = monthly natural gas usage from EQUI 1 and EQUI 14, mmcf/month<br/> EF = AP-42 Table 1.4-3 emission factor (7.5E-02 lb/mmcf for formaldehyde; 1.8E+00 lb/mmcf for hexane). [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.4.8              | <p>Step 3) The natural gas combustion total HAP (minus formaldehyde and hexane) emissions for the previous calendar month using Equation 3.</p> <p>Equation 3: <math>H_{ct} = (NG * 1.3E-02) / 2000</math></p> <p>Where:<br/> Hct = monthly total HAP (minus formaldehyde and hexane) natural gas combustion emissions, tons/month<br/> NG = COMG 12 monthly natural gas usage, mmcf/month<br/> 1.3E-02 = composite total HAP emission factor (minus formaldehyde and hexane based on AP-42 Tables 1.4-3 and 1.4-4). [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.4.9              | Step 4) The total monthly formaldehyde emissions (lb/month) by summing the monthly formaldehyde emissions determined by Equations 1 and 2. [Minn. R. 7007.0800 , subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.4.10             | Step 5) The monthly total HAP emissions for the previous month by summing the acetaldehyde, acrolein, and methanol monthly emissions determined in Step 1 above, the formaldehyde monthly emissions determined in Step 4 above, the hexane monthly emissions determined in Step 2 above, and the total combustion HAP minus formaldehyde and hexane monthly emissions determined in Step 3 above. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.4.11             | Step 6) The 12-month rolling sum emissions of each single HAP species for the previous 12-month period by individually summing the monthly emissions data for acetaldehyde, acrolein, and methanol for the previous 12 months determined in Step 1, by summing the monthly formaldehyde emissions data determined in Step 4, and by summing the hexane emissions data determined in Step 2. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.4.12             | Step 7) The 12-month rolling sum total HAP emissions by summing the monthly total HAPs emissions data determined in Step 5 above, for the previous 12 months. [Minn. R. 7007.0800, subsp. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.4.13             | Daily Recordkeeping of Hours of Operation: The Permittee shall keep daily records of hours of operation that emissions are vented to STRU 8, 13, 20 and 22 and the hours of operation that emissions are controlled by associated control equipment. Any hours of operation where the associated control equipment is down and emissions are venting to STRU 8, 13, 20 and 22 must be calculated as uncontrolled emissions. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.4.14             | Recordkeeping: Daily Fuel Usage: Once each day, record the total cubic feet of natural gas combusted by EQUI 1 and EQUI 14 during the previous calendar day. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.4.15             | Recordkeeping: Monthly Fuel Usage: By the 15th of each month, calculate and record the total cubic feet of natural gas combusted by EQUI 1 and EQUI 14 during the previous calendar month. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.4.16             | Daily Recordkeeping of Hours of Operation: The Permittee shall keep daily records of hours of operation that emissions are vented to STRU 8, 13, 20, and 22 and the hours of operation that emissions are controlled by associated control equipment. Any hours of operation where the associated control equipment is down and emissions are venting to STRU 8, 13, 20 and 22 must be calculated as uncontrolled emissions. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>COMG 14</b>     | <b>Fermentation Scrubber</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.5.1              | <p>COMG 14 Operating Scenario 1 - Emissions are vented to STRU 8 from TREA 19 and through the CO2 Plant.</p> <p>The Permittee must vent emissions from all emission units that vent to (or are associated with) STRU 8, including existing, modified, or new VOC-emitting units to a scrubber that meets the requirements of TREA 19 whenever any emission unit that vents to (or is associated with) STRU 8 operates, except as otherwise authorized by this permit, and must operate and maintain a scrubber that meets the requirements of TREA 19 at all times that any emissions vent to it.</p> <p>After control by TREA 19, the Permittee is authorized to vent all or a portion of emissions to STRU 8 or to send a portion of exhaust gases to the Carbon Dioxide Recovery Skid. The Carbon Dioxide Recovery Skid is authorized to vent to either STRU 22 (controlled by TREA 14 - RTO) or STRU 8. The Permittee</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | <p>must use the operating parameters (short-term throughput limits and control equipment parameters) determined during performance testing of COMG 14 Operating Scenario 2 during COMG 14 OS 1 operation. COMG 14 OS 2 does not take credit for emission reductions from the CO<sub>2</sub> skid.</p> <p>See TREA 19 for applicable limits, recordkeeping and reporting requirements for scrubber operations with and without operation of the Carbon Dioxide Recovery Skid.</p> <p>See COMG 21 for applicable limits, testing, recordkeeping and reporting requirements. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.5.2              | <p>COMG 14 Operating Scenario 2 - Emissions are vented to STRU 8 directly from TREA 19. When operating under COMG 14 OS 2, the Permittee must vent emissions from all emission units that vent to (or are associated with) STRU 8, including existing, modified, or new VOC-emitting units to a scrubber that meets the requirements of TREA 19 whenever any emission unit that vents to (or is associated with) STRU 8 operates, except as otherwise authorized by this permit, and must operate and maintain a scrubber that meets the requirements of TREA 19 at all times that any emissions vent to it. The DDGS dryers must be shut down during Operating Scenario 2. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.5.3              | <p>COMG 14 Operating Scenario 3 - Emissions are vented to STRU 8 from TREA 25 and through the CO<sub>2</sub> Plant.</p> <p>The Permittee must vent emissions from all emission units that vent to (or are associated with) STRU 8, including existing, modified, or new VOC-emitting units to a scrubber that meets the requirements of TREA 25 whenever any emission unit that vents to (or is associated with) STRU 8 operates, except as otherwise authorized by this permit, and must operate and maintain a scrubber that meets the requirements of TREA 25 at all times that any emissions vent to it.</p> <p>After control by TREA 25, the Permittee is authorized to vent all or a portion of emissions to STRU 8 or to send a portion of exhaust gases to the Carbon Dioxide Recovery Skid. The Carbon Dioxide Recovery Skid is authorized to vent to either STRU 22 (controlled by TREA 14 - RTO) or STRU 8. The Permittee must use the operating parameters (short-term throughput limits and control equipment parameters) determined during performance testing of COMG 14 Operating Scenario 2 during COMG 14 OS 3 operation. COMG 14 OS 4 does not take credit for emission reductions from the CO<sub>2</sub> skid.</p> <p>See TREA 25 for applicable limits, recordkeeping and reporting requirements for scrubber operations with and without operation of the Carbon Dioxide Recovery Skid.</p> <p>See COMG 21 for applicable limits, testing, recordkeeping and reporting requirements. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.5.4              | <p>COMG 14 Operating Scenario 4 - Emissions are vented to STRU 8 directly from TREA 25.</p> <p>When operating under COMG 14 OS 4, the Permittee must vent emissions from all emission units that vent to (or are associated with) STRU 8, including existing, modified, or new VOC-emitting units to a</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                    | scrubber that meets the requirements of TREA 25 whenever any emission unit that vents to (or is associated with) STRU 8 operates, except as otherwise authorized by this permit, and must operate and maintain a scrubber that meets the requirements of TREA 25 at all times that any emissions vent to it. The DDGS dryers must be shut down during Operating Scenario 4. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.5.5              | The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 12.0 pounds per hour 3-hour average as total mass of VOC, when venting directly to atmosphere. Fermentation scrubber-controlled equipment for the purposes of COMG 14 limits are defined to include all fermentation equipment with emissions controlled by TREA 19 or TREA 25. If the Permittee replaces any existing VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 14, TREA 19, TREA 25 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.5.6              | During all Operating Scenarios combined: Operating Hours $\leq$ 1,000 hours per year when venting COMG 14 members directly to atmosphere. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.5.7              | Opacity $\leq$ 20 percent opacity. This limit applies individually to each member of COMG 14. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.5.8              | Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 14. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.5.9              | The Permittee must limit COMG 14 OS 1, COMG 14 OS 2, TREA 19 OS 1, and TREA 19 OS 2 Short-Term Process Throughput $\leq$ 715 gallons per minute 3-hour average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 form.<br>The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed is 715 gallons per minute. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                          |
| 5.5.10             | The Permittee must limit COMG 14 OS 3, COMG 14 OS 4, TREA 25 OS 3, and TREA 25 OS 4 Short-Term Process Throughput $\leq$ 715 gallons per minute 3-hour average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 form.<br>The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed is 715 gallons per minute. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major                                                                                                                                                                                                                                                                                                                                    |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.5.11             | <p>The Permittee must limit COMG 14 OS 4 and TREA 25 OS 2 Short-Term Process Throughput <math>\leq</math> 715 gallons per minute 3-hour average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed is 715 gallons per minute. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.5.12             | <p>Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the beer feed throughput on a three-hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.5.13             | <p>Daily Recordkeeping: Each occurrence that STRU 8 is vented directly to the atmosphere, record the date, start time, duration, and operating scenario during the bypass of the RTO or CO2 recovery plant. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.5.14             | <p>Recordkeeping of Alternative Operating Scenarios: Each day of operation the Permittee must record and maintain the hours of operation in OS 1, 2, 3, or 4.</p> <p>Alternative Operating Scenario Recordkeeping:<br/>The Permittee shall keep a log showing which operating scenario it is operating under at all times. The log shall be updated whenever making a change from one operating scenario to the other. The record shall at a minimum include the day and time the switch was made and the designation of the operating scenario. The log may be hand-written or electronic. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.5.15             | <p>Protocol for Resetting Short-Term Process Throughput Limits:<br/>The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.5.16             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li> <li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 19 and 25.</li> <li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li> <li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li> </ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.5.17             | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.5.18             | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>COMG 15</b>     | <b>Distillation Scrubber</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.6.1              | The Permittee must limit emissions of Volatile Organic Compounds $\leq$ 1.5 pounds per hour 3-hour block average as total mass of VOCs. Distillation scrubber-controlled equipment for the purposes of COMG 15 limits are defined to include all dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment, and stripping equipment with emissions controlled by TREA 17. If the Permittee replaces any existing VOC-emitting equipment, adds new VOC-emitting equipment or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 15, TREA 17, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                    | The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.6.2              | The Permittee must vent emissions from all emission units that vent to STRU 13, including existing, modified, or new emission units that vent to STRU 13 to a scrubber meeting the requirements of TREA 17 whenever any emission unit that vents to STRU 13 operates, and must operate and maintain a scrubber that meets the requirements of TREA 17 at all times that any emissions vent to it. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                         |
| 5.6.3              | Opacity <= 20 percent opacity. This limit applies individually to each member of COMG 15. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.6.4              | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 15. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.6.5              | The Permittee must limit Short-Term Process Throughput <= 715 gallons per minute 3-hour average beer feed rate to the distillation process as determined during the March 17 - April 9, 2020 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form. The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed rate is 715 gallons per minute based on the process throughput rate achieved in the December 19, 2023 performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                   |
| 5.6.6              | The Permittee must limit Short-Term Process Throughput <= 135.4 gallons per minute 3-hour average ethanol production rate based on feed rate to ethanol storage as determined during the March 17 - April 9, 2020 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form. The highest process throughput rate as of permit issuance of permit 04500049-102 for ethanol production is 715 gallons per minute based on the process throughput rate achieved in the December 19, 2023 performance test. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2] |
| 5.6.7              | Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the beer feed and ethanol production throughput on a three-hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.6.8              | Protocol for Resetting the Short-Term Process Throughput Limit:<br>The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | <p>was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.6.9              | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 17.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li><li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li></ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.6.10             | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.6.11             | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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|                    | and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>COMG 16</b>     | <b>NSPS DD</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.7.1              | The Permittee shall limit Particulate Matter $\leq 0.01$ grains per dry standard cubic foot. [40 CFR 60.302(b)(1) & Minn. R. 7011.1005, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.7.2              | The Permittee shall limit Opacity $\leq 0$ percent opacity. [40 CFR 60.302(b)(2) & Minn. R. 7011.1005, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.7.3              | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.1(a)-(c);<br/> 40 CFR 60.2;<br/> 40 CFR 60.3;<br/> 40 CFR 60.4;<br/> 40 CFR 60.8(a)-(i); and<br/> 40 CFR 60.11.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. DD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p>                                                                                                                                                                                                              |
| <b>COMG 17</b>     | <b>DDGS Silo</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.8.1              | The Permittee must limit emissions of Particulate Matter $\leq 0.070$ pounds per hour 3-hour average from STRU 17. DDGS Silo equipment for the purposes of COMG 17 limits are defined to include all conveyors, separation equipment, and silos/bins. If the Permittee replaces any existing PM-emitting DDGS Silo equipment, adds new PM-emitting DDGS Silo equipment, or modifies the existing DDGS Silo equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 17, TREA 20, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.8.2              | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.070$ pounds per hour 3-hour average from STRU 17. DDGS Silo equipment for the purposes of COMG 17 limits are defined to include all conveyors, separation equipment, and silos/bins. If the Permittee replaces any existing PM10-emitting DDGS Silo equipment, adds new PM10-emitting DDGS Silo equipment, or modifies the existing DDGS Silo equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 17, TREA 20, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.8.3              | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.070$ pounds per hour 3-hour average                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | from STRU 17. DDGS Silo equipment for the purposes of COMG 17 limits are defined to include all conveyors, separation equipment, and silos/bins. If the Permittee replaces any existing PM2.5-emitting DDGS Silo equipment, adds new PM2.5-emitting DDGS Silo equipment, or modifies the existing DDGS Silo equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 17, TREA 20, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                         |
| 5.8.4              | The Permittee must limit emissions of Sulfur Dioxide $\leq 0.42$ pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.8.5              | Opacity $\leq 10$ percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.8.6              | Particulate Matter $\geq 80$ percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.8.7              | The Permittee must vent emissions from all DDGS Silo equipment, including existing, modified or new Silo equipment to control equipment meeting the requirements of TREA 20. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.8.8              | <p>The Permittee must limit Short-Term Process Throughput <math>\leq 715</math> gallons per minute 3-hour block average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed is 715 gallons per minute. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.8.9              | Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the beer feed throughput on a three-hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.8.10             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | <p>three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.8.11             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</p> <p>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</p> <p>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 20.</p> <p>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</p> <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.8.12             | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.8.13             | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>COMG 18</b>     | <b>Grain Handling Pit #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.9.1              | <p>The Permittee must limit emissions of Particulate Matter <math>\leq 0.30</math> pounds per hour 3-hour block average from STRU 33. Grain handling equipment for the purposes of COMG 18 limits are defined to include all conveyors, elevators, material handling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM-emitting grain handling equipment, adds new PM-</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                    | emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 18, TREA 15, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.9.2              | The Permittee must limit emissions of PM < 10 micron $\leq$ 0.30 pounds per hour 3-hour block average from STRU 33. Grain handling equipment for the purposes of COMG 18 limits are defined to include all conveyors, elevators, material handling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM10-emitting grain handling equipment, adds new PM10-emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 18, TREA 15, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.9.3              | The Permittee must limit emissions of PM < 2.5 micron $\leq$ 0.30 pounds per hour 3-hour average from STRU 33. Grain handling equipment for the purposes of COMG 18 limits are defined to include all conveyors, elevators, material handling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM2.5-emitting grain handling equipment, adds new PM2.5-emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 18, TREA 15, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                         |
| 5.9.4              | Opacity $\leq$ 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.9.5              | The Permittee must vent emissions from all grain handling equipment, including existing, modified, or new grain handling equipment to control equipment meeting the requirements of TREA 15. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.9.6              | The Permittee must limit the hours of operation of grain receiving operations each day to the hours of 5 AM to 7 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.9.7              | Hours of Operation: Daily Recordkeeping: On each day of operation, the Permittee must record the time that the first and last grain receiving truck is received at the facility. This shall be based on written records or receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.9.8              | The Permittee must limit Short-Term Process Throughput $\leq$ 420 tons per hour 3-hour block average of grain received based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.<br>The highest process throughput rate as of permit issuance of permit 04500049-102 for grain received is 420 tons/hour based on the process throughput rate achieved in the October 15-18, 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | performance test. The maximum capacity for grain received throughput is 427 tons per hour 3-hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.9.9              | Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the grain received throughput on a three-hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.9.10             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.9.11             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 15.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li></ol>                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.9.12             | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.9.13             | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>COMG 19</b>     | <b>Receiving Pit #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.10.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 23. Grain receiving equipment for the purposes of COMG 19 limits are defined to include all conveyors, elevators, loading-unloading equipment, rolling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM-emitting grain handling equipment, adds new PM-emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 19, TREA 11, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.10.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 23. Grain receiving equipment for the purposes of COMG 19 limits are defined to include all conveyors, elevators, loading-unloading equipment, rolling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM10-emitting grain handling equipment, adds new PM10-emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 19, TREA 11, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.10.3             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 23. Grain receiving equipment for the purposes of COMG 19 limits are defined to include all conveyors, elevators, loading-unloading equipment, rolling equipment, and silos/bins used to handle the grain received. If the Permittee replaces any existing PM2.5-emitting grain handling equipment, adds new PM2.5-emitting grain handling equipment, or modifies the existing grain handling equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 19, TREA 11, and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.10.4             | The Permittee must vent emissions from all grain receiving equipment, including existing, modified, or new grain receiving equipment to control equipment meeting the requirements of TREA 11. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.10.5             | The Permittee must limit the hours of operation of grain receiving operations each day to the hours of 5 AM to 7 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.10.6             | Hours of Operation: Daily Recordkeeping: On each day of operation, the Permittee must record the time that the first and last grain receiving truck is received at the facility. This shall be based on written records or receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.10.7             | The Permittee must limit Short-Term Process Throughput $\leq$ 560 tons per hour 3-hour block average of grain received based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 81 and must be reported on the applicable DRF-2 Form.<br>The highest process throughput rate as of permit issuance of permit 04500049-102 is 560 tons/hour based on the process throughput rate achieved in the October 15-18, 2024 performance test. The maximum capacity for grain received throughput is 582 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.10.8             | Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the grain received throughput on a three-hour block average. This must be recorded in usage logs. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.10.9             | Protocol for Resetting the Short-Term Process Throughput Limit:<br>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.<br><br>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.<br><br>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.<br><br>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.10.10            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li> <li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 11.</li> <li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li> <li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li> </ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.10.11            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.10.12            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>COMG 20</b>     | <b>Centrifuges to Atmosphere</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.11.1             | Operating Hours <= 500 hours per year 12-month rolling sum when venting COMG 20 members via STRU 41 directly to atmosphere. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.11.2             | Daily Recordkeeping: Each occurrence that COMG 20 members are vented via STRU 41 directly to the atmosphere, record the date, start time, duration, and operating scenario during the bypass of the RTO. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| 5.11.3             | Recordkeeping: by the 15th day of each month, record the hours COMG 20 members are vented via STRU 41 directly to the atmosphere during the previous month and during the previous 12-month period (12-month rolling sum). [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>COMG 21</b>     | <b>3-Chambered RTO</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.12.1             | COMG 21 requirements will be terminated upon startup of TREA 27 replacing TREA 14. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.12.2             | The Permittee must limit emissions of Particulate Matter $\leq 12.0$ pounds per hour 3-hour average from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM-emitting equipment, adds new PM-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.12.3             | The Permittee must limit emissions of PM $< 10$ micron $\leq 12.0$ pounds per hour 3-hour average from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM10-emitting equipment, adds new PM10-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.12.4             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 12.0$ pounds per hour 3-hour average from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM2.5-emitting equipment, adds new PM2.5-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                   |
| 5.12.5             | The Permittee must limit emissions of Volatile Organic Compounds $\leq 12.0$ pounds per hour 12-month rolling average as mass from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I                                                                                                    |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                    | Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I<br>Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.12.6             | The Permittee must limit emissions of Carbon Monoxide $\leq$ 100 parts per million or 90 percent reduction from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any CO-emitting equipment, adds new CO-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.12.7             | The Permittee must limit emissions of Carbon Monoxide $\leq$ 13.1 pounds per hour 3-hour average from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any CO-emitting equipment, adds new CO-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                  |
| 5.12.8             | The Permittee must limit emissions of Sulfur Dioxide $\leq$ 50.0 pounds per hour 3-hour average from STRU 22. Thermal oxidizer-controlled equipment for the purposes of COMG 21 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any SO <sub>2</sub> -emitting equipment, adds new SO <sub>2</sub> -emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 21, TREA 14 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                  |
| 5.12.9             | Opacity $\leq$ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 1(A)(2)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.12.10            | Sulfur Dioxide $\leq$ 2.0 pounds per million Btu heat input when burning liquid fossil fuels. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuels. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.12.11            | Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 1(A)(1)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.12.12            | Opacity $\leq$ 20 percent opacity. This limit applies individually to each member of COMG 21, except EQUI 20 and EQUI 61. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.12.13            | Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                    | 7011.0735. This limit applies individually to each member of COMG 21, except EQUI 20 and EQUI 61. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.12.14            | Recordkeeping: Once each operating day, the Permittee must record the syrup feed rate. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.12.15            | COMG 21 OS #1: The Permittee must vent emissions from all emission units that vent to STRU 22, including existing, modified, or new emission units that vent to STRU 22 to a RTO that meets the requirements of TREA 14 whenever any emission unit that vents to STRU 22 operates except as otherwise authorized by this permit, and must operate and maintain a RTO that meets the requirements of TREA 14 at all times that any emissions vent to it. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2] |
| 5.12.16            | COMG 21 OS #2 RTO Bypass: The Permittee is authorized to bypass the RTO and vent emissions to STRU 8 for up to 1,000 hours per year. See COMG 14 for applicable limits and requirements. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.12.17            | Emissions from centrifuges are authorized by this permit to vent to either STRU 22 (indirect) or STRU 41 (direct) under limited conditions. See COMG 20 for applicable limits, recordkeeping and reporting requirements. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.12.18            | Emissions from any whole stillage tank are authorized by this permit to vent to STRU 22 (indirect) and STRU 45 (direct). See EQUI 195 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.12.19            | Emissions from any thin stillage tank are authorized by this permit to vent to STRU 22 (indirect) and STRU 46 (direct). See EQUI 196 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.12.20            | Emissions from any syrup tank are authorized by this permit to vent to STRU 22 (indirect) and STRUs 47 and 48 (direct). See EQUIs 197 and 211 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.12.21            | The Permittee must limit Short-Term Process Throughput $\leq$ 715 gallons per minute 3-hour block average beer feed rate to the distillation process as determined during the March 17 and April 9, 2020 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form. The highest process throughput rate as of permit issuance of permit 04500049-102 for beer feed rate is 715 gallons per minute based on the process throughput rate achieved in the March 17 and April 9, 2020 performance test. The maximum capacity for beer feed throughput is 715 gallons per minute 3                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | hour block average. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.12.22            | <p>The Permittee must limit Short-Term Process Throughput <math>\leq</math> 142.3 gallons per minute 3-hour average ethanol production rate based on feed rate to ethanol storage as determined during the March 17 and April 9, 2020 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for ethanol production is 142.3 gallons per minute based on the process throughput rate achieved in the March 17 and April 9, 2020 performance test. The maximum capacity for ethanol production throughput is 142.3 gallons per minute 3 hour block average. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.12.23            | <p>Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the beer feed and ethanol production throughput on a 3 hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.12.24            | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10, PM2.5, CO, SO2 and VOC emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.12.25            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                    | <p>Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</p> <p>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</p> <p>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 14.</p> <p>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</p> <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.12.26            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.12.27            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>COMG 22</b>     | <b>RTO 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.13.1             | COMG 22 requirements will become effective upon startup of TREA 27 replacing TREA 14. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.13.2             | The Permittee must limit emissions of Particulate Matter $\leq 13.5$ pounds per hour 3-hour average from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM-emitting equipment, adds new PM-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.13.3             | The Permittee must limit emissions of PM $< 10$ micron $\leq 13.5$ pounds per hour 3-hour average from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM10-emitting equipment, adds new PM10-emitting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                    | equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.13.4             | The Permittee must limit emissions of PM < 2.5 micron <= 13.5 pounds per hour 3-hour average from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any PM2.5-emitting equipment, adds new PM2.5-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                 |
| 5.13.5             | The Permittee must limit emissions of Volatile Organic Compounds <= 12.0 pounds per hour 12-month rolling average as mass from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.13.6             | The Permittee must limit emissions of Carbon Monoxide <= 100 parts per million or 90 percent reduction from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any CO-emitting equipment, adds new CO-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                      |
| 5.13.7             | The Permittee must limit emissions of Carbon Monoxide <= 13.1 pounds per hour 3-hour average from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any CO-emitting equipment, adds new CO-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                    | complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.13.8             | The Permittee must limit emissions of Sulfur Dioxide $\leq$ 50.0 pounds per hour 3-hour average from STRU 57. Thermal oxidizer-controlled equipment for the purposes of COMG 22 limits are defined to include dryers/ovens, fermentation equipment, material handling equipment, and separation equipment. If the Permittee replaces any SO <sub>2</sub> -emitting equipment, adds new SO <sub>2</sub> -emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 22, TREA 27 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.13.9             | Opacity $\leq$ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 1(A)(2)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.13.10            | Sulfur Dioxide $\leq$ 2.0 pounds per million Btu heat input when burning liquid fossil fuels. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuels. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.13.11            | Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to EQUI 20 and EQUI 61. [Minn. R. 7011.0610, subp. 1(A)(1)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.13.12            | Opacity $\leq$ 20 percent opacity. This limit applies individually to each member of COMG 22, except EQUI 20 and EQUI 61. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.13.13            | Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 22, except EQUI 20 and EQUI 61. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.13.14            | Recordkeeping: Once each operating day, the Permittee must record the syrup feed rate. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.13.15            | COMG 22 OS #1: The Permittee must vent emissions from all emission units that vent to STRU 57, including existing, modified, or new units that vent to STRU 57 to a RTO that meets the requirements of TREA 27 whenever any emission unit that vents to STRU 57 operates except as otherwise authorized by this permit, and must operate and maintain a RTO that meets the requirements of TREA 27 at all times that any emissions vent to it. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                         |
| 5.13.16            | COMG 22 OS #2 RTO Bypass: The Permittee is authorized to bypass the RTO and vent emissions to STRU 8 for up to 1,000 hours per year. See COMG 14 for applicable limits and requirements. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| 5.13.17            | Emissions from centrifuges are authorized by this permit to vent to either STRU 57 (indirect) or STRU 41 (direct) under limited conditions. See COMG 20 for applicable limits, recordkeeping and reporting requirements. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.13.18            | Emissions from any whole stillage tank are authorized by this permit to vent to STRU 57 (indirect) and STRU 45 (direct). See EQUI 195 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.13.19            | Emissions from any thin stillage tank are authorized by this permit to vent to STRU 57 (indirect) and STRU 46 (direct). See EQUI 196 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.13.20            | Emissions from any syrup tank are authorized by this permit to vent to STRU 57 (indirect) and STRUs 47 and 48 (direct). See EQUIs 197 and 211 for applicable limits, recordkeeping and reporting requirements for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.13.21            | <p>The Permittee must limit Short-Term Process Throughput <math>\leq</math> 715 gallons per minute 3-hour block average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 is 715 gallons per minute. The maximum capacity for beer feed throughput is 715 gallons per minute 3 hour block average. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                             |
| 5.13.22            | <p>The Permittee must limit Short-Term Process Throughput <math>\leq</math> 142.3 gallons per minute 3-hour average ethanol production rate based on feed rate to ethanol storage unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 is 142.3 gallons per minute. The maximum capacity for ethanol production throughput is 142.3 gallons per minute 3 hour block average. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.13.23            | Short-Term Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the beer feed and ethanol production throughput on a 3 hour block average. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.13.24            | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, SO<sub>2</sub> and VOC emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | <p>Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.13.25            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li> <li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 27.</li> <li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li> <li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li> </ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.13.26            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.13.27            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>COMG 23</b>     | <b>Hammermill #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.14.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 29. Hammermill equipment for the purposes of COMG 23 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM-emitting hammermill equipment, adds new PM-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 23, TREA 7 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.14.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 29. Hammermill equipment for the purposes of COMG 23 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM10-emitting hammermill equipment, adds new PM10-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 23, TREA 7 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.14.3             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 29. Hammermill equipment for the purposes of COMG 23 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM2.5-emitting hammermill equipment, adds new PM2.5-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 23, TREA 7 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                   |
| 5.14.4             | Opacity $\leq 20$ percent opacity. This limit applies individually to each member of COMG 23. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.14.5             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 23. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.14.6             | The Permittee must vent emissions from all hammermill equipment, including existing, modified, or new hammermill equipment to control equipment meeting the requirements of TREA 7. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 5.14.7             | <p>The Permittee must limit Combined Hammermill Short-Term Process Throughput <math>\leq</math> 81.7 tons per hour 3-hour average of grain throughput based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for grain throughput is 81.7 tons/hour based on the process throughput rate achieved in the October 15-18, 2024 performance test. The maximum capacity for grain throughput is 81.7 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.14.8             | <p><b>Protocol for Resetting the Short-Term Process Throughput Limit:</b></p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.14.9             | <p><b>Procedure to Increase the Short-Term Process Throughput Limit:</b></p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 7.</li></ol>                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <p>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</p> <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                            |
| 5.14.10            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.14.11            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>COMG 24</b>     | <b>Hammermill #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.15.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 30. Hammermill equipment for the purposes of COMG 24 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM-emitting hammermill equipment, adds new PM-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 24, TREA 8 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.15.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 30. Hammermill equipment for the purposes of COMG 24 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM10-emitting hammermill equipment, adds new PM10-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 24, TREA 8 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.15.3             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 30. Hammermill equipment for the purposes of COMG 24 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM2.5-emitting hammermill equipment, adds new PM2.5-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 24, TREA 8 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.15.4             | Opacity <= 20 percent opacity. This limit applies individually to each member of COMG 24. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.15.5             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 24. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.15.6             | The Permittee must vent emissions from all hammermill equipment, including existing, modified, or new hammermill equipment to control equipment meeting the requirements of TREA 8. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.15.7             | <p>The Permittee must limit Combined Hammermill Short-Term Process Throughput &lt;= 81.7 tons per hour 3-hour average of grain throughput based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for grain throughput is 81.7 tons/hour based on the process throughput rate achieved in the October 15-18, 2024 performance test. The maximum capacity for grain throughput is 81.7 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.15.8             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.15.9             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | <p>operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li> <li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 8.</li> <li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li> <li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li> </ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.15.10            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.15.11            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>COMG 25</b>     | <b>Hammermill #3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.16.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 31. Hammermill equipment for the purposes of COMG 25 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM-emitting hammermill equipment, adds new PM-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 25, TREA 9 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.16.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 31. Hammermill equipment for the purposes of COMG 25 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM10-emitting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | hammermill equipment, adds new PM10-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 25, TREA 9 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                  |
| 5.16.3             | The Permittee must limit emissions of PM < 2.5 micron <= 0.410 pounds per hour 3-hour average from STRU 31. Hammermill equipment for the purposes of COMG 25 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM2.5-emitting hammermill equipment, adds new PM2.5-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 25, TREA 9 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                     |
| 5.16.4             | Opacity <= 20 percent opacity. This limit applies individually to each member of COMG 25. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.16.5             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 25. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.16.6             | The Permittee must vent emissions from all hammermill equipment, including existing, modified, or new hammermill equipment to control equipment meeting the requirements of TREA 9. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.16.7             | <p>The Permittee must limit Combined Hammermill Short-Term Process Throughput &lt;= 81.7 tons per hour 3-hour average of grain throughput based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 is 81.7 tons/hour based on the process throughput rate achieved in the October 15-18, 2024 performance test. The maximum capacity for grain throughput is 81.7 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.16.8             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing</p>                                                                                                                                                                                            |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    | <p>results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.16.9             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li> <li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 9.</li> <li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li> <li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li> </ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.16.10            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.16.11            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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| <b>COMG 26</b>     | <b>Hammermill #4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.17.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 32. Hammermill equipment for the purposes of COMG 26 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM-emitting hammermill equipment, adds new PM-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 26, TREA 10 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.17.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 32. Hammermill equipment for the purposes of COMG 26 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM10-emitting hammermill equipment, adds new PM10-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 26, TREA 10 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.17.3             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 32. Hammermill equipment for the purposes of COMG 26 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM2.5-emitting hammermill equipment, adds new PM2.5-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 26, TREA 10 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                   |
| 5.17.4             | Opacity $\leq 20$ percent opacity. This limit applies individually to each member of COMG 26. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.17.5             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 26. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.17.6             | The Permittee must vent emissions from all hammermill equipment, including existing, modified, or new hammermill equipment to control equipment meeting the requirements of TREA 10. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.17.7             | The Permittee must limit Combined Hammermill Short-Term Process Throughput $\leq 81.7$ tons per hour 3-hour average of grain throughput based on grain receipts as determined during the October 15-18, 2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | <p>The highest process throughput rate as of permit issuance of permit 04500049-102 is 81.7 tons/hour based on the process throughput rate achieved in the October 15-18, 2024 performance test. The maximum capacity for grain throughput is 81.7 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.17.8             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                     |
| 5.17.9             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 10.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li><li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period</li></ol> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                    | must be reported as a deviation.<br><br>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.17.10            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.17.11            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>COMG 27</b>     | <b>Hammermill #5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.18.1             | The Permittee must limit emissions of Particulate Matter $\leq 0.410$ pounds per hour 3-hour average from STRU 58. Hammermill equipment for the purposes of COMG 27 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM-emitting hammermill equipment, adds new PM-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 27, TREA 26 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                        |
| 5.18.2             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 58. Hammermill equipment for the purposes of COMG 27 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM10-emitting hammermill equipment, adds new PM10-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 27, TREA 26 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.18.3             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.410$ pounds per hour 3-hour average from STRU 58. Hammermill equipment for the purposes of COMG 27 limits are defined to include all conveyors, elevators and milling equipment. If the Permittee replaces any existing PM2.5-emitting hammermill equipment, adds new PM2.5-emitting hammermill equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of COMG 27, TREA 26 and TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. The Permittee must still complete the calculations described in Minn. R. 7007.1200, subp. 3 to determine if a permit amendment is needed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                   |
| 5.18.4             | Opacity $\leq 20$ percent opacity. This limit applies individually to each member of COMG 27. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.18.5             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each member of COMG 27. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.18.6             | The Permittee must vent emissions from all hammermill equipment, including existing, modified, or new hammermill equipment to control equipment meeting the requirements of TREA 26. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.18.7             | <p>The Permittee must limit Combined Hammermill Short-Term Process Throughput <math>\leq</math> 81.7 tons per hour 3-hour average of grain throughput based on grain receipts unless a new limit is set pursuant to Minn. R. 7017.2025. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF-2 Form.</p> <p>The highest process throughput rate as of permit issuance of permit 04500049-102 for grain throughput is 81.7 tons/hour. The maximum capacity for grain throughput is 81.7 tons per hour 3 hour block average. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.18.8             | <p>Protocol for Resetting the Short-Term Process Throughput Limit:</p> <p>The Permittee shall conduct performance testing to measure the PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.18.9             | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> <li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li> <li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | <p>the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</p> <p>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 26.</p> <p>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</p> <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.18.10            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.18.11            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>EQUI 1</b>      | <b>Grain Receiving Pit 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.19.1             | The Permittee shall limit Opacity <= 5 percent opacity from truck unloading station, railcar unloading station and railcar loading station fugitive emissions. This requirement applies on and after the 60th day of achieving the maximum production rate, but no later than 180 days after initial startup. [40 CFR 60.302(c)(1) & Minn. R. 7011.1005, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.19.2             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. DD as follows:</p> <p>40 CFR 60.300;<br/> 40 CFR 60.301;<br/> 40 CFR 60.302(c)(1);<br/> 40 CFR 60.303; and<br/> 40 CFR 60.304.</p> <p>A copy of 40 CFR pt. 60, subp. DD is included in Appendix I.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. DD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1005, subp. 2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.19.3             | Visible Emissions (VE) Inspection: The Permittee must conduct visible emissions (VE) readings using Method 22 or an alternative method approved by the MPCA at the observation location for EQUI 1 at                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                    | least once each day of operation while grain is being unloaded from a truck. The visible emissions check must be conducted from a location perpendicular to the plume and at least 15 feet away during daylight hours, and the observation period must be no less than 10 minutes. The observer must select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions must be recorded. Each observer determining the presence of visible emissions must meet the training requirements specified in 40 CFR pt. 60, appendix A-7, section 2.3 of Method 22. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                       |
| 5.19.4             | Recordkeeping of VE Inspection: The Permittee must record the time and date of each visible emissions inspection, the name and location of the observer, whether or not any visible emissions were observed, and a description of the corrective actions taken if visible emissions were observed. The presence of visible emissions at the unloading station is considered a deviation and must be reported in the semiannual deviations report required by this permit. If no grain is unloaded at EQUI 1 during the operating day, then the Permittee must record that no grain was unloaded. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                            |
| 5.19.5             | Corrective Actions: The Permittee must take corrective action as soon as possible if visible emissions are observed at EQUI 1. Corrective actions include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECF) for the operations, reducing the truck loading rate, closing the pit door during loading operations, and ceasing operations until no visible emissions are observed. Corrective actions must return the affected facility operation to a condition where the facility does not exceed opacity limits. The Permittee must keep a record of the type and date of any corrective action taken, and whether or not the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]                                                                                                          |
| 5.19.6             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.1(a)-(c);<br/> 40 CFR 60.2;<br/> 40 CFR 60.3;<br/> 40 CFR 60.4;<br/> 40 CFR 60.8(a)-(i); and<br/> 40 CFR 60.11.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. DD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p> |
| <b>EQUI 5</b>      | <b>DDGS Storage Building</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.20.1             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>EQUI 8</b>      | <b>DDGS Loadout Elevator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.21.1             | The Permittee must clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology). [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.1005, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.21.2             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| 5.21.3             | <p>Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at a downwind door once each day of operation while DDGS is being handled. The visible emissions check must be conducted from a location perpendicular to the plume and at least 15 feet away during daylight hours. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions must be recorded. If after one year of VE readings no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while DDGS is being handled.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations found in Appendix H of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings, a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations found in Appendix H of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]</p> |
| 5.21.4             | <p>Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible, unless the Permittee determines that the opacity is less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations. Corrective actions should include, but are not limited to, O&amp;M and best management practices outlined in the Fugitive Emission Control Plan (FECF) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. [Minn. R. 7007.0800, subp. 2(A)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.21.5             | <p>Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission check, the name and location of the observer, whether or not any visible emissions were observed, and a description of the corrective actions taken if visible emissions were observed. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission and weather conditions, such as wind direction and estimated speed. If the Permittee determines that the opacity results are less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations, the Permittee is not required to take corrective actions, nor report a deviation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.21.6             | <p>The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>EQUI 9</b>      | <b>Boiler #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.22.1             | <p>Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis for the previous calendar month. These records may consist of fuel bills or meter readings. See COMG 4 for additional EQUI 9 requirements. [40 CFR 60.13(i), 40 CFR 60.13(i)(EPA memo) Dated Feb 20, 1992, 40 CFR 60.48c(g) &amp; (i), 40 CFR 60.48c(i), CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0570, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.22.2             | <p>The Permittee must limit emissions of Sulfur Dioxide <math>\leq 0.043</math> pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| 5.22.3             | Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.22.4             | Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.22.5             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.1(a);<br/> 40 CFR 60.1(b);<br/> 40 CFR 60.1(c);<br/> 40 CFR 60.2;<br/> 40 CFR 60.3;<br/> 40 CFR 60.4;<br/> 40 CFR 60.5(a);<br/> 40 CFR 60.5(b);<br/> 40 CFR 60.6(a);<br/> 40 CFR 60.6(b);<br/> 40 CFR 60.7(a)(4);<br/> 40 CFR 60.7(b);<br/> 40 CFR 60.9;<br/> 40 CFR 60.11(d);<br/> 40 CFR 60.11(f);<br/> 40 CFR 60.11(g);<br/> 40 CFR 60.12;<br/> 40 CFR 60.14(a);<br/> 40 CFR 60.14(b);<br/> 40 CFR 60.14(c);<br/> 40 CFR 60.14(e);<br/> 40 CFR 60.14(f);<br/> 40 CFR 60.14(g);<br/> 40 CFR 60.15(a);<br/> 40 CFR 60.15(b);<br/> 40 CFR 60.15(c);<br/> 40 CFR 60.15(d);<br/> 40 CFR 60.15(e);<br/> 40 CFR 60.15(f);<br/> 40 CFR 60.15(g);<br/> 40 CFR 60.17;<br/> 40 CFR 60.19(a);<br/> 40 CFR 60.19(b);<br/> 40 CFR 60.19(c);<br/> 40 CFR 60.19(d);<br/> 40 CFR 60.19(e);<br/> 40 CFR 60.19(f)(1);<br/> 40 CFR 60.19(f)(2);<br/> 40 CFR 60.19(f)(3); and<br/> 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40</p> |

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|                    | CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Dc, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.0570, Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>EQUI 14</b>     | <b>Boiler #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.23.1             | Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis for the previous calendar month. These records may consist of fuel bills or meter readings. See COMG 4 for additional EQUI 14 requirements. [40 CFR 60.13(i), 40 CFR 60.13(i)(EPA memo)Dated Feb 20, 1992, 40 CFR 60.48c(g) & (i), 40 CFR 60.48c(i), CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0570, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                      |
| 5.23.2             | The Permittee must limit emissions of Sulfur Dioxide <= 0.037 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.23.3             | Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.23.4             | Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.23.5             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:<br><br>40 CFR 60.1(a);<br>40 CFR 60.1(b);<br>40 CFR 60.1(c);<br>40 CFR 60.2;<br>40 CFR 60.3;<br>40 CFR 60.4;<br>40 CFR 60.5(a);<br>40 CFR 60.5(b);<br>40 CFR 60.6(a);<br>40 CFR 60.6(b);<br>40 CFR 60.7(a)(4);<br>40 CFR 60.7(b);<br>40 CFR 60.9;<br>40 CFR 60.11(d);<br>40 CFR 60.11(f);<br>40 CFR 60.11(g);<br>40 CFR 60.12;<br>40 CFR 60.14(a);<br>40 CFR 60.14(b);<br>40 CFR 60.14(c);<br>40 CFR 60.14(e);<br>40 CFR 60.14(f);<br>40 CFR 60.14(g);<br>40 CFR 60.15(a);<br>40 CFR 60.15(b);<br>40 CFR 60.15(c);<br>40 CFR 60.15(d);<br>40 CFR 60.15(e);<br>40 CFR 60.15(f);<br>40 CFR 60.15(g);<br>40 CFR 60.17;<br>40 CFR 60.19(a); |



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|                    | <p>40 CFR 60.19(b);<br/> 40 CFR 60.19(c);<br/> 40 CFR 60.19(d);<br/> 40 CFR 60.19(e);<br/> 40 CFR 60.19(f)(1);<br/> 40 CFR 60.19(f)(2);<br/> 40 CFR 60.19(f)(3); and<br/> 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Dc, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.0570, Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p>                                                                                                                                               |
| <b>EQUI 20</b>     | <b>DDGS Dryer #1 with Multicyclone</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.24.1             | <p>Emergency Bypass Use: The Permittee may bypass TREA 14 (RTO) when the DDGS dryers are in operation only when plant or worker safety would be in jeopardy without the use of the bypass. Each period of bypass use, while the DDGS dryers are operated, shall be recorded in the daily operating record. The record shall include the date, start time of use, duration of use, and the facility operating conditions during its use. For periods of bypass use while the DDGS dryers are operated and the facility does not follow the SSM procedures, the Permittee shall conduct a root-cause failure analysis of the event and submit a report of the analysis to the Commissioner within 15 days.</p> <p>The emissions emitted during a bypass event shall be considered uncontrolled and shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.24.2             | <p>Thermal Oxidizer Burnouts and Other Maintenance Activities: During thermal oxidizer malfunctions and any other maintenance for which the manufacturer recommends dryer emissions bypass the thermal oxidizer, the dryer shall be shutdown. Wet DDGS shall be stored and handled to minimize VOC emissions and odors during these maintenance activities.</p> <p>The Permittee shall maintain a record of such maintenance activities in the O &amp; M plan for TREA 14. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.24.3             | Thermal Oxidizer Breakdown: In the event of a breakdown of the thermal oxidizer, the Permittee shall stop feed into the dryer as soon as the breakdown is discovered. Dryer operation may continue as long as necessary to empty the dryer. The Permittee shall also submit the notification required by Minn. R. 7019.1000, subp. 2, if required. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>EQUI 23</b>     | <b>Fluid Bed Cooler</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.25.1             | The Permittee must vent emissions from EQUI 23 to a fabric filter that meets the requirements of TREA 22 whenever EQUI 23 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 22 at all times that any emissions vent to it. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.25.2             | The Permittee must limit emissions of Volatile Organic Compounds <= 8.0 pounds per hour 3-hour block average as total mass VOC. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 5.25.3             | The Permittee must limit emissions of Particulate Matter $\leq 2.74$ pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.25.4             | The Permittee must limit emissions of PM $< 10$ micron $\leq 2.74$ pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.25.5             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 2.74$ pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.25.6             | The Permittee must limit emissions of Sulfur Dioxide $\leq 0.84$ pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.25.7             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.25.8             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.25.9             | <p>The Permittee must limit Short-Term Process Throughput <math>\leq 715</math> gallons per minute 3-hour block average beer feed rate to the distillation process unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits.</p> <p>The Permittee must maintain at the facility adequate records to demonstrate continuous compliance with these operating condition limitations. Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a, and must be reported. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.25.10            | <p>Protocol for Resetting the Short-Term Process Throughput Limits:</p> <p>The Permittee shall conduct performance testing to measure VOC as mass and PM, PM<sub>10</sub> and PM<sub>2.5</sub> emission rates as required elsewhere in this permit. If the established Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.25.11            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</p> <p>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</p> <p>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at TREA 22.</p> <p>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</p> <p>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7017.0080, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p> |
| 5.25.12            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.25.13            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.25.14            | <p>Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>EQUI 28</b>     | <b>Grain Receiving Pit 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.26.1             | The Permittee shall limit Opacity <= 5 percent opacity from truck unloading station, railcar unloading station and railcar loading station fugitive emissions. This requirement applies on and after the 60th day of achieving the maximum production rate, but no later than 180 days after initial startup. [40 CFR 60.302(c)(1) & Minn. R. 7011.1005, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.26.2             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. DD as follows:</p> <p>40 CFR 60.300;<br/> 40 CFR 60.301;<br/> 40 CFR 60.302(c)(1);</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | <p>40 CFR 60.303; and<br/>40 CFR 60.304.</p> <p>A copy of 40 CFR pt. 60, subp. DD is included in Appendix I.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. DD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1005, subp. 2]</p>                                                                                                                                                                                                                                                                                                                                                      |
| 5.26.3             | <p>Visible Emissions (VE) Inspection: The Permittee must conduct visible emissions (VE) readings using Method 22 or an alternative method approved by the MPCA at the observation location for EQUI 28 at least once each day of operation while grain is being unloaded from a truck. The visible emissions check must be conducted from a location perpendicular to the plume and at least 15 feet away during daylight hours, and the observation period must be no less than 10 minutes. The observer must select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions must be recorded. Each observer determining the presence of visible emissions must meet the training requirements specified in 40 CFR pt. 60, appendix A-7, section 2.3 of Method 22. [Minn. R. 7007.0800, subps. 4-5]</p> |
| 5.26.4             | <p>Recordkeeping of VE Inspection: The Permittee must record the time and date of each visible emissions inspection, the name and location of the observer, whether or not any visible emissions were observed, and a description of the corrective actions taken if visible emissions were observed. The presence of visible emissions at the unloading station is considered a deviation and must be reported in the semiannual deviations report required by this permit. If no grain is unloaded at EQUI 28 during the operating day, then the Permittee must record that no grain was unloaded. [Minn. R. 7007.0800, subps. 4-5]</p>                                                                                                                                                                                                                                                                                            |
| 5.26.5             | <p>Corrective Actions: The Permittee must take corrective action as soon as possible if visible emissions are observed at EQUI 28. Corrective actions include, but are not limited to, O&amp;M and best management practices outlined in the Fugitive Emission Control Plan (FECp) for the operations, reducing the truck loading rate, closing the pit door during loading operations, and ceasing operations until no visible emissions are observed. Corrective actions must return the affected facility operation to a condition where the facility does not exceed opacity limits. The Permittee must keep a record of the type and date of any corrective action taken, and whether or not the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]</p>                                                                                                                                      |
| 5.26.6             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.1(a)-(c);<br/>40 CFR 60.2;<br/>40 CFR 60.3;<br/>40 CFR 60.4;<br/>40 CFR 60.8(a)-(i); and<br/>40 CFR 60.11.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. DD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 &amp;</p>                                                                                      |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>EQUI 34</b>     | <b>200 Proof Ethanol Storage Tank (T804)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.27.1             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows:</p> <p>40 CFR 60.110b(a);<br/> 40 CFR 60.111b;<br/> 40 CFR 60.112b(a);<br/> 40 CFR 60.112b(a)(1)(i);<br/> 40 CFR 60.112b(a)(1)(ii)(B);<br/> 40 CFR 60.112b(a)(1)(iii)-(ix);<br/> 40 CFR 60.113b(a)(1);<br/> 40 CFR 60.113b(a)(3)(ii);<br/> 40 CFR 60.113b(a)(4);<br/> 40 CFR 60.113b(a)(5);<br/> 40 CFR 60.115b(a)(1);<br/> 40 CFR 60.115b(a)(2);<br/> 40 CFR 60.115b(a)(4);<br/> 40 CFR 60.116b(a); and<br/> 40 CFR 60.116b(c).</p> <p>A copy of 40 CFR pt. 60, subp. Kb is included in Appendix G.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1520(C)]</p>                                                                      |
| 5.27.2             | <p>Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                  |
| 5.27.3             | <p>Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.27.4             | <p>The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the commissioner in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520(C)]</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 5.27.5             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.7(a)(4);<br/> 40 CFR 60.7(b);<br/> 40 CFR 60.7(f); and<br/> 40 CFR 60.12.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1520(C), Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p>                                                                                                                                                                                                                       |
| <b>EQUI 35</b>     | <b>200 Proof Ethanol Storage Tank (T806)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.28.1             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows:</p> <p>40 CFR 60.110b(a);<br/> 40 CFR 60.111b;<br/> 40 CFR 60.112b(a);<br/> 40 CFR 60.112b(a)(1)(i);<br/> 40 CFR 60.112b(a)(1)(ii)(B);<br/> 40 CFR 60.112b(a)(1)(iii)-(ix);<br/> 40 CFR 60.113b(a)(1);<br/> 40 CFR 60.113b(a)(3)(ii);<br/> 40 CFR 60.113b(a)(4);<br/> 40 CFR 60.113b(a)(5);<br/> 40 CFR 60.115b(a)(1);<br/> 40 CFR 60.115b(a)(2);<br/> 40 CFR 60.115b(a)(4);<br/> 40 CFR 60.116b(a); and<br/> 40 CFR 60.116b(c).</p> <p>A copy of 40 CFR pt. 60, subp. Kb is included in Appendix G.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1520(C)]</p> |
| 5.28.2             | <p>Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                             |
| 5.28.3             | <p>Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.28.4             | The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the commissioner in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520(C)] |
| 5.28.5             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:<br><br>40 CFR 60.7(a)(4);<br>40 CFR 60.7(b);<br>40 CFR 60.7(f); and<br>40 CFR 60.12.<br><br>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1520(C), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 36</b>     | <b>190 Proof Ethanol Storage Tank</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.29.1             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows:<br><br>40 CFR 60.110b(a);<br>40 CFR 60.111b;<br>40 CFR 60.112b(a);<br>40 CFR 60.112b(a)(1)(i);<br>40 CFR 60.112b(a)(1)(ii)(B);<br>40 CFR 60.112b(a)(1)(iii)-(ix);<br>40 CFR 60.113b(a)(1);<br>40 CFR 60.113b(a)(3)(ii);<br>40 CFR 60.113b(a)(4);<br>40 CFR 60.113b(a)(5);<br>40 CFR 60.115b(a)(1);<br>40 CFR 60.115b(a)(2);<br>40 CFR 60.115b(a)(4);<br>40 CFR 60.116b(a); and<br>40 CFR 60.116b(c).<br><br>A copy of 40 CFR pt. 60, subp. Kb is included in Appendix G.<br><br>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1520(C)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.29.2             | Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520(C)]                                                                                                                                                                                                                                                                                                                                                  |
| 5.29.3             | Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.29.4             | The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the commissioner in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520(C)] |
| 5.29.5             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.7(a)(4);<br/> 40 CFR 60.7(b);<br/> 40 CFR 60.7(f); and<br/> 40 CFR 60.12.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1520(C), Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p>                                                                                                                                                                                                                                                                                     |
| <b>EQUI 37</b>     | <b>200 Proof Ethanol Storage Tank (T803)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.30.1             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows:</p> <p>40 CFR 60.110b(a);<br/> 40 CFR 60.111b;<br/> 40 CFR 60.112b(a);<br/> 40 CFR 60.112b(a)(1)(i);<br/> 40 CFR 60.112b(a)(1)(ii)(B);<br/> 40 CFR 60.112b(a)(1)(iii)-(ix);<br/> 40 CFR 60.113b(a)(1);</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <p>40 CFR 60.113b(a)(3)(ii);<br/> 40 CFR 60.113b(a)(4);<br/> 40 CFR 60.113b(a)(5);<br/> 40 CFR 60.115b(a)(1);<br/> 40 CFR 60.115b(a)(2);<br/> 40 CFR 60.115b(a)(4);<br/> 40 CFR 60.116b(a); and<br/> 40 CFR 60.116b(c).</p> <p>A copy of 40 CFR pt. 60, subp. Kb is included in Appendix G.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.30.2             | <p>Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                  |
| 5.30.3             | <p>Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.30.4             | <p>The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the commissioner in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520(C)]</p> |
| 5.30.5             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.7(a)(4);<br/> 40 CFR 60.7(b);<br/> 40 CFR 60.7(f); and<br/> 40 CFR 60.12.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1520(C), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>EQUI 38</b>     | <b>Denaturant Tank (T802)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.31.1             | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows:</p> <p>40 CFR 60.110b(a);<br/>         40 CFR 60.111b;<br/>         40 CFR 60.112b(a);<br/>         40 CFR 60.112b(a)(1)(i);<br/>         40 CFR 60.112b(a)(1)(ii)(B);<br/>         40 CFR 60.112b(a)(1)(iii)-(ix);<br/>         40 CFR 60.113b(a)(1);<br/>         40 CFR 60.113b(a)(3)(ii);<br/>         40 CFR 60.113b(a)(4);<br/>         40 CFR 60.113b(a)(5);<br/>         40 CFR 60.115b(a)(1);<br/>         40 CFR 60.115b(a)(2);<br/>         40 CFR 60.115b(a)(4);<br/>         40 CFR 60.116b(a);<br/>         40 CFR 60.116b(b); and<br/>         40 CFR 60.116b(c).</p> <p>A copy of 40 CFR pt. 60, subp. Kb is included in Appendix G.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.1520(C)]</p> |
| 5.31.2             | <p>Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.31.3             | <p>Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.31.4             | <p>The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the commissioner in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an</p>                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520(C)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.31.5             | The Permittee shall equip the storage vessel (EQUI 38) with a floating roof, a vapor recovery system, or their equivalents. [Minn. R. 7011.1505, subp. 3(C)(1)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.31.6             | Recordkeeping: The Permittee must maintain a file of each type of petroleum liquid stored, the typical Reid vapor pressure of each type of petroleum liquid stored as defined by Minn. R. 7011.1500, subp. 10, the dates of storage and withdrawals, and the date on which the storage vessel is empty. [Minn. R. 7011.1510, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.31.7             | Monthly Calculations: By the 15th day of each month, the Permittee must determine and record for the storage vessel (EQUI 38):<br>-the average storage temperature for the previous calendar month according to Minn. R. 7011.1510, subp. 2; and<br>-the true vapor pressure of the petroleum liquid stored at such temperature according to Minn. R. 7011.1510, subp. 3. [Minn. R. 7011.1510, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.31.8             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:<br><br>40 CFR 60.7(a)(4);<br>40 CFR 60.7(b);<br>40 CFR 60.7(f); and<br>40 CFR 60.12.<br><br>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.1520(C), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                                                                                     |
| <b>EQUI 61</b>     | <b>DDGS Dryer #2 with Multicyclone</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.32.1             | Emergency Bypass Use: The Permittee may bypass TREA 14 (RTO) when the DDGS dryers are in operation only when plant or worker safety would be in jeopardy without the use of the bypass. Each period of bypass use, while the DDGS dryers are operated, shall be recorded in the daily operating record. The record shall include the date, start time of use, duration of use, and the facility operating conditions during its use. For periods of bypass use while the DDGS dryers are operated and the facility does not follow the SSM procedures, the Permittee shall conduct a root-cause failure analysis of the event and submit a report of the analysis to the Commissioner within 15 days.<br><br>The emissions emitted during a bypass event shall be considered uncontrolled and shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2] |
| 5.32.2             | Thermal Oxidizer Burnouts and Other Maintenance Activities: During thermal oxidizer malfunctions and any other maintenance for which the manufacturer recommends dryer emissions bypass the thermal oxidizer, the dryer shall be shutdown. Wet DDGS shall be stored and handled to minimize VOC emissions and odors during these maintenance activities.<br><br>The Permittee shall maintain a record of such maintenance activities in the O & M plan for TREA 14. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.32.3             | Thermal Oxidizer Breakdown: In the event of a breakdown of the thermal oxidizer, the Permittee shall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | stop feed into the dryer as soon as the breakdown is discovered. Dryer operation may continue as long as necessary to empty the dryer. The Permittee shall also submit the notification required by Minn. R. 7019.1000, subp. 2, if required. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>EQUI 67</b>     | <b>Ethanol Loading Rack #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.33.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.33.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.33.3             | The Permittee must vent emissions from EQUI 67 to control equipment meeting the requirements of TREA 6 whenever EQUI 67 operates. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>EQUI 71</b>     | <b>Ethanol Loading Rack #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.34.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.34.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.34.3             | The Permittee must vent emissions from EQUI 71 to control equipment meeting the requirements of TREA 6 whenever EQUI 71 operates. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>EQUI 177</b>    | <b>DDGS Reclaim Pit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.35.1             | The Permittee must clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology). [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.1005, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.35.2             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.35.3             | <p>Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at the overhead DDGS building door at least once each day of operation while DDGS is being handled and loaded into a truck. The visible emissions check must be conducted from a location perpendicular to the plume and at least 15 feet away during daylight hours. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions must be recorded. If after one year of VE readings no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while DDGS is being loaded into a truck.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations found in Appendix H of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations found in Appendix H of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.35.4             | Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible, unless the Permittee determines that the opacity is less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECF) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.35.5             | Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission check, the name and location of the observer, whether or not any visible emissions were observed, and a description of the corrective actions taken if visible emissions were observed. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission and weather conditions, such as wind direction and estimated speed. If the Permittee determines that the opacity results are less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations, the Permittee is not required to take corrective actions, nor report a deviation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.35.6             | The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>EQUI 179</b>    | <b>DDGS Truck Loadout Spout</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.36.1             | The Permittee must clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology). [Minn. R. 7011.1005, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.36.2             | Opacity <= 10 percent opacity from truck loading stations fugitive emissions. [Minn. R. 7011.1005, subp. 3(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.36.3             | <p>Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at the overhead DDGS building door at least once each day of operation while DDGS is being loaded into a truck or into a container. The visible emissions check must be conducted from a location perpendicular to the plume and at least 15 feet away during daylight hours. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions must be recorded. If after one year of VE readings no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while DDGS is being loaded into a truck or a container.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations found in Appendix H of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | Intermittent Dust Generating Operations found in Appendix H of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.36.4             | Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible, unless the Permittee determines that the opacity is less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECF) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                    |
| 5.36.5             | Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission check, the name and location of the observer, whether or not any visible emissions were observed, and a description of the corrective actions taken if visible emissions were observed. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission and weather conditions, such as wind direction and estimated speed. If the Permittee determines that the opacity results are less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations, the Permittee is not required to take corrective actions, nor report a deviation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5] |
| 5.36.6             | The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>EQUI 195</b>    | <b>Whole Stillage Tank</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.37.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.37.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>EQUI 196</b>    | <b>Thin Stillage Tank</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.38.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.38.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>EQUI 197</b>    | <b>Syrup Tank #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.39.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.39.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>EQUI 199</b>    | <b>DDGS Flat Storage Conveyor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.40.1             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>EQUI 200</b>    | <b>DDGS Reclaim Pit Conveyor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.41.1             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>EQUI 201</b>    | <b>DDGS Truck Loadout Pit Conveyor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.42.1             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 5.42.2             | The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.42.3             | Hours of Operation: Daily Recordkeeping: On each day of operation, the Permittee must record the time that the first and last DDGS truck is received at the facility. This shall be based on written records or receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                   |
| <b>EQUI 202</b>    | <b>DDGS Portable Container Loadout</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.43.1             | Opacity <= 10 percent opacity from truck loading stations fugitive emissions. [Minn. R. 7011.1005, subp. 3(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.43.2             | The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.43.3             | Hours of Operation: Daily Recordkeeping: On each day of operation, the Permittee must record the time that the first and last DDGS truck is received at the facility. This shall be based on written records or receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                   |
| <b>EQUI 204</b>    | <b>Flour Receiver</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.44.1             | The Permittee must vent emissions from any emission unit that vents to STRU 43 to a fabric filter that meets the requirements of EQUI 204 whenever any emission unit that vents to STRU 43 operates, and must operate and maintain a fabric filter that meets the requirements of EQUI 204 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the fabric filter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.44.2             | The Permittee must limit emissions of Particulate Matter <= 0.140 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.44.3             | The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 204 such that it achieves an outlet concentration rate for Particulate Matter <= 0.0040 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                             |
| 5.44.4             | The Permittee must limit emissions of PM < 10 micron <= 0.140 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                     |
| 5.44.5             | The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 204 such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0040 grains per dry standard cubic foot. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                            |
| 5.44.6             | The Permittee must limit emissions of PM < 2.5 micron <= 0.140 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.44.7             | The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 204 such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0040 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                |
| 5.44.8             | The Permittee is authorized to construct and operate EQUI 204 meeting the following design requirements: a flour receiver with a maximum capacity of 96.00 tons grain per hour.                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The units must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.44.9             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.44.10            | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.44.11            | <p>Monitoring and Recordkeeping Requirement for Short-Term Throughput Limit:<br/> The Permittee must monitor, record and maintain the following flow and density measurements, as needed to show compliance with a 3-hour block average, for use in calculating the combined flour throughput limit above:</p> <ol style="list-style-type: none"> <li>1. Pre-blend density measurements (D1) - either with the in-line density meter from the pre-blend tank to the slurry tank or a laboratory sample as described below.</li> <li>2. Slurry density measurements (D4) - either with an in-line slurry density meter leaving the slurry tank or laboratory sample as described below.</li> <li>3. Pre-Blend flow (V1) as measured by flow meter from Pre-Blend Tank to Slurry Tank</li> <li>4. City Water (Process water) flow (V2) as measured by flow meter from Process Water Tank to Slurry Tank</li> <li>5. Scrubber Water Flow (V3) as measured by flow meter from scrubbers to slurry tank. and</li> <li>6. Slurry Flow (V4) as measured by flow meters from slurry tank to fermentation tanks. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</li> </ol>                                                                                                                       |
| 5.44.12            | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 1 of 2)</p> <p>Step 1: Determine the Mass flow rate of the water sources (WSx) entering the slurry tank and the water to flour mix (W/F or mash) leaving the slurry tank using density measurements and volumetric flow readings and Equation 1 below.</p> <p>Equation 1: Mass Flow Rate (lb/min) = Density (lb/gal) x Volumetric Flow Rate (gal/min)</p> <p>WS1 = D1 x V1<br/> WS2 = D2 x V2<br/> WS3 = D3 x V3<br/> W/F = D4 X V4</p> <p>Where:</p> <p>WS1 = Water Source 1 (Pre-blend water) mass flow rate (lb/min)<br/> WS2 = Water Source 2 (City water makeup) mass flow rate (lb/min)<br/> WS3 = Water Source 3 (Water from scrubbers) mass flow rate (lb/min)<br/> W/F = Mass of Water/Flour Mix (lb/min)<br/> D1 = Density (lb/gal) of WS1 as measured by pre-blend water density measurements (either density meter or samples) from pre-blend tank to slurry tank.<br/> D2 = Density (lb/gal) of WS2 = 8.33 lb/gal (constant)<br/> D3 = Density (lb/gal) of WS3 = 8.33 lb/gal (constant)<br/> D4 = Density (lb/gal) of W/F as measured by slurry density measurements (either density meter or samples) leaving the slurry tank<br/> V1 = Volumetric Flow rate of WS1 (gal/min) as measured by flow meter from Process Water Tank to Slurry Tank<br/> V2 = Volumetric Flow rate of WS2 (gal/min) as measured by flow meter from Process Water Tank to</p> |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                    | <p>Slurry Tank</p> <p>V3 = Volumetric Flow rate of WS3 (gal/min) as measured by flow meter from scrubbers to slurry tank</p> <p>V4 = Volumetric Flow rate of W/F (gal/min) as measured by flow meter leaving the slurry tank. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.44.13            | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 2 of 2)</p> <p>Step 2: Determine mass of flour using results of Equation 1 in Equation 2, and converting from lb/min to ton/hour</p> <p>Equation 2: Mass of Flour (ton/hour) = (W/F - (WS1+WS2+WS3)) x 60 min/hour / 2000 lbs/ton. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.44.14            | <p>Slurry Density (W/F) Based on Sampling. The Permittee may collect slurry samples leaving the slurry tank during any 3-hour period in lieu of relying upon the data from the slurry density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.44.15            | <p>Pre-Blend Water Density (D1) Based on Sampling. The Permittee may collect pre-blend water samples leaving the pre-blend tank during any 3-hour period in lieu of relying upon the data from the pre-blend water density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.44.16            | <p>The Permittee must limit Combined Hammermill Short-Term Process Throughput <math>\leq</math> 81.7 tons per hour 3-hour average of combined flour throughput based on slurry density measurements (D4), volumetric flow meters (V1-V3, W/F), and pre-blend density measurements (D1) to be used in the calculations as detailed below, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits.</p> <p>The Permittee must maintain at the facility adequate volumetric flow monitoring records and density measurements to demonstrate continuous compliance with these operating condition limitations. The facility must use a continuous hard-copy recorder or data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour averages. Missed readings and recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a, and must be reported. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.44.17            | <p>Protocol for Resetting the Short-Term Process Throughput Limits:</p> <p>The Permittee shall conduct performance testing to measure PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.44.18            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at EQUI 204.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li><li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li></ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p> |
| 5.44.19            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.44.20            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| 5.44.21            | Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.44.22            | The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O&M) Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.44.23            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br>- visible emissions are observed;<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5] |
| 5.44.24            | Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.44.25            | Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the fabric filter external components. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                 |
| 5.44.26            | Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal fabric filter components not covered by the quarterly inspections. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                    |
| 5.44.27            | Annual Calibration: The Permittee shall calibrate the pressure drop gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of the calibration and any action resulting from the calibration or replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 5]                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.44.28            | If the Permittee replaces or modifies a fabric filter that meets the requirements of EQUI 204, such fabric filter is subject to all requirements of EQUI 204 as well as all other requirements of TFAC 1. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.44.29            | Prior to replacing the fabric filter, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.<br><br>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this                                                                                                                                                                                                                              |

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|                    | permit. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.44.30            | Pressure Drop $\geq 0.05$ and $\leq 6.0$ inches of water column whenever emissions are venting to the fabric filter, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop reading is once again within the required range. [Minn. R. 7007.0800, subp. 14, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.44.31            | Daily Pressure Drop: Once each day of operation, the Permittee shall read the pressure drop across the fabric filter. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.44.32            | Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                            |
| <b>EQUI 205</b>    | <b>Fermenter #12</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.45.1             | The Permittee is authorized to construct and operate EQUI 205, meeting the following design requirements: fermentation equipment with a capacity of 270,000 gallons of beer per hour.<br><br>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                              |
| <b>EQUI 206</b>    | <b>Fermenter #13</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.46.1             | The Permittee is authorized to construct and operate EQUI 206, meeting the following design requirements: fermentation equipment with a capacity of 270,000 gallons of beer per hour.<br><br>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                              |
| <b>EQUI 211</b>    | <b>Syrup Tank #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.47.1             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.47.2             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 212</b>    | <b>Corrosion Inhibitor Storage Tank (T852)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.48.1             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.48.2             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 213</b>    | <b>Flour Receiver</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.49.1             | The Permittee must remove EQUI 213 before initial startup of EQUI 204. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| 5.49.2             | The Permittee must vent emissions from any emission unit that vents to STRU 18 to EQUI 213 whenever any emission unit that vents to STRU 18 operates, and must operate and maintain EQUI 213 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the fabric filter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.49.3             | The Permittee must limit emissions of Particulate Matter $\leq 0.140$ pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.49.4             | The Permittee shall operate and maintain EQUI 213 such that it achieves an outlet concentration rate for Particulate Matter $\leq 0.0040$ grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.49.5             | The Permittee must limit emissions of PM $< 10$ micron $\leq 0.140$ pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.49.6             | The Permittee shall operate and maintain EQUI 213 such that it achieves an outlet concentration rate for PM $< 10$ micron $\leq 0.0040$ grains per dry standard cubic foot. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.49.7             | The Permittee must limit emissions of PM $< 2.5$ micron $\leq 0.140$ pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.49.8             | The Permittee shall operate and maintain EQUI 213 such that it achieves an outlet concentration rate for PM $< 2.5$ micron $\leq 0.0040$ grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.49.9             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.49.10            | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.49.11            | The Permittee must limit Short-Term Process Throughput $\leq 81.7$ tons per hour 3-hour average combined flour throughput based on slurry density measurements (D4), volumetric flow meters (V1-V3, W/F), pre-blend density measurements (D1) to be used in the calculations as detailed below, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits. The Permittee must maintain at the facility adequate volumetric flow monitoring records and density measurements to demonstrate continuous compliance with these operating condition limitations. The facility must use a continuous hard-copy recorder or data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour averages. Missed readings and recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a, and must be reported. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.49.12            | Protocol for Resetting the Short-Term Process Throughput Limits:<br>The Permittee shall conduct performance testing to measure PM, PM10 and PM2.5 emission rates as required elsewhere in this permit. If the established Process Throughput Limit is to be reset, the reset shall be based on the actual conditions (process throughput and control equipment operating parameters) recorded during the most recent MPCA-approved performance test where compliance was demonstrated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                    | <p>To reset the limit higher than the Short-Term Process Throughput Limit in this permit, the Permittee must follow the requirements of the Procedure to Increase Short-Term Process Throughput Limit and apply for and obtain a major permit amendment incorporating the change. If performance testing results in a reset of the limit lower than the permit limit, the Permittee must comply with the more stringent limit upon receipt of the follow up compliance letter.</p> <p>During the performance test, the Permittee must continuously monitor the process throughput. The Permittee shall calculate the average process throughput based on the average exhibited over all three test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>Ongoing compliance with the Short-Term Process Throughput Limit will be determined using the same format as was used during the performance test. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.49.13            | <p>Procedure to Increase the Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the Short-Term Process Throughput Limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased Short-Term Process Throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the process throughput limit, if prior to the test date.</li><li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test and time periods authorized in the test plan approval letter.</li><li>3. The control equipment operating parameters will be reset through receipt of a follow up compliance letter to the actual conditions of the performance test as detailed in permit requirements at EQUI 213.</li><li>4. To increase the Short-Term Process Throughput Limit in this permit, the Permittee must apply for and obtain a major permit amendment incorporating the change.</li><li>5. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing Short-Term Process Throughput Limit during the higher process throughput time period must be reported as a deviation.</li></ol> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p> |
| 5.49.14            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.49.15            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 5.49.16            | <p>Monitoring and Recordkeeping Requirement for Short-Term Throughput Limit:<br/> The Permittee must monitor, record and maintain the following flow and density measurements, as needed to show compliance with a 3-hour block average, for use in calculating the combined flour throughput limit above:</p> <ol style="list-style-type: none"> <li>1. Pre-blend density measurements (D1) - either with the in-line density meter from the pre-blend tank to the slurry tank or a laboratory sample as described below.</li> <li>2. Slurry density measurements (D4) - either with an in-line slurry density meter leaving the slurry tank or laboratory sample as described below.</li> <li>3. Pre-Blend flow (V1) as measured by flow meter from Pre-Blend Tank to Slurry Tank</li> <li>4. City Water (Process water) flow (V2) as measured by flow meter from Process Water Tank to Slurry Tank</li> <li>5. Scrubber Water Flow (V3) as measured by flow meter from scrubbers to slurry tank. and</li> <li>6. Slurry Flow (V4) as measured by flow meters from slurry tank to fermentation tanks. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.49.17            | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 1 of 2)</p> <p>Step 1: Determine the Mass flow rate of the water sources (WSx) entering the slurry tank and the water to flour mix (W/F or mash) leaving the slurry tank using density measurements and volumetric flow readings and Equation 1 below.</p> <p>Equation 1: Mass Flow Rate (lb/min) = Density (lb/gal) x Volumetric Flow Rate (gal/min)</p> <p>WS1 = D1 x V1<br/> WS2 = D2 x V2<br/> WS3 = D3 x V3<br/> W/F = D4 X V4</p> <p>Where:</p> <p>WS1 = Water Source 1 (Pre-blend water) mass flow rate (lb/min)<br/> WS2 = Water Source 2 (City water makeup) mass flow rate (lb/min)<br/> WS3 = Water Source 3 (Water from scrubbers) mass flow rate (lb/min)<br/> W/F = Mass of Water/Flour Mix (lb/min)<br/> D1 = Density (lb/gal) of WS1 as measured by pre-blend water density measurements (either density meter or samples) from pre-blend tank to slurry tank.<br/> D2 = Density (lb/gal) of WS2 = 8.33 lb/gal (constant)<br/> D3 = Density (lb/gal) of WS3 = 8.33 lb/gal (constant)<br/> D4 = Density (lb/gal) of W/F as measured by slurry density measurements (either density meter or samples) leaving the slurry tank<br/> V1 = Volumetric Flow rate of WS1 (gal/min) as measured by flow meter from Process Water Tank to Slurry Tank<br/> V2 = Volumetric Flow rate of WS2 (gal/min) as measured by flow meter from Process Water Tank to Slurry Tank<br/> V3 = Volumetric Flow rate of WS3 (gal/min) as measured by flow meter from scrubbers to slurry tank<br/> V4 = Volumetric Flow rate of W/F (gal/min) as measured by flow meter leaving the slurry tank. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.49.18            | <p>Calculation Method for Combined Hammermill Short-term Process Throughput Rate in tons/hour (Step 2 of 2)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | <p>Step 2: Determine mass of flour using results of Equation 1 in Equation 2, and converting from lb/min to ton/hour</p> <p>Equation 2: Mass of Flour (ton/hour) = (W/F - (WS1+WS2+WS3)) x 60 min/hour / 2000 lbs/ton. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.49.19            | Slurry Density (W/F) Based on Sampling. The Permittee may collect slurry samples leaving the slurry tank during any 3-hour period in lieu of relying upon the data from the slurry density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.49.20            | Pre-Blend Water Density (D1) Based on Sampling. The Permittee may collect pre-blend water samples leaving the pre-blend tank during any 3-hour period in lieu of relying upon the data from the pre-blend water density meter. The Permittee shall determine the density in the on-site laboratory. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.49.21            | Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.49.22            | The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O&M) Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.49.23            | <p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- visible emissions are observed;</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]</p> |
| 5.49.24            | Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.49.25            | Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the fabric filter external components. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                           |
| 5.49.26            | Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal fabric filter components not covered by the quarterly inspections. This includes, but is not limited to, components that are not                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



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|                    | subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.49.27            | Annual Calibration: The Permittee shall calibrate the pressure drop gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of the calibration and any action resulting from the calibration or replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 5]                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.49.28            | Pressure Drop $\geq 0.05$ and $\leq 6.0$ inches of water column whenever emissions are venting to the fabric filter, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop reading is once again within the required range. [Minn. R. 7007.0800, subp. 14, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.49.29            | Daily Pressure Drop: Once each day of operation, the Permittee shall read the pressure drop across the fabric filter. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.49.30            | Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                            |
| <b>EQUI 214</b>    | <b>Centrifuge 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.50.1             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.50.2             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 215</b>    | <b>Centrifuge 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.51.1             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.51.2             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 216</b>    | <b>Centrifuge 3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.52.1             | Opacity $\leq 20$ percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.52.2             | Particulate Matter $\leq 0.30$ grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 218</b>    | <b>Emergency Diesel Generator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.53.1             | Best Management Practices for Internal Combustion Engines (ICE)<br>1. The Permittee must only use diesel fuel with a sulfur content of less than or equal to 15 ppm or natural gas in the emergency engines.<br>2. The Permittee may not install a rain cap on the emergency engine stack.<br>3. The Permittee must make the test runs for each engine as short as allowed by insurance and building code considerations.<br>4. The testing for an emergency engine shall not occur while another emergency engine is being                                                                                                                                                                                                                                                                                                                    |

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|                    | tested.<br>5. No testing shall be conducted on a day the Air Quality Index (AQI) or the forecasted AQI (found on the MPCA website) exceeds 90, unless the test cannot be deferred. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                          |
| 5.53.2             | Permittee must record the following information for each test of each engine:<br>1. The unit that was tested;<br>2. The date;<br>3. The time the test started;<br>4. The time the test was completed; and<br>5. The Air Quality Index (AQI) at the time the test began. If testing was conducted on a day with the AQI above 90, document the reason it was not possible to defer the test. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)] |
| 5.53.3             | The Permittee is authorized to construct and operate EQUI 218 meeting the following design requirements: a diesel emergency engine with a maximum power of 2,250 kW.<br><br>The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                             |
| 5.53.4             | EQUI 218 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI 218. [40 CFR 63.6590(c), Minn. R. 7011.8150]                                                                                                                                      |
| 5.53.5             | The Permittee must limit emissions of NMHC+NOx <= 6.4 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                                   |
| 5.53.6             | The Permittee must limit emissions of Particulate Matter <= 0.20 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                        |
| 5.53.7             | The Permittee must limit emissions of Carbon Monoxide <= 3.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                            |
| 5.53.8             | The Permittee must limit emissions of Opacity <= 20 percent opacity during the acceleration mode. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                                                            |
| 5.53.9             | The Permittee must limit emissions of Opacity <= 15 percent opacity during the lugging mode. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                                                                 |
| 5.53.10            | The Permittee must limit emissions of Opacity <= 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                                                                            |
| 5.53.11            | The Permittee must limit Sulfur Content of Fuel <= 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR 1090.305. [40 CFR 60.4207(b), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150]                                                                                                                                                                                                                                           |
| 5.53.12            | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. IIII as follows:<br><br>40 CFR 60.4200(a)(2)(i);<br>40 CFR 60.4202(b)(2);<br>40 CFR 60.4205(b);                                                                                                                                                                                                                                                                                                                                                |

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|                    | <p>40 CFR 60.4206;<br/> 40 CFR 60.4207(b);<br/> 40 CFR 60.4208(a);<br/> 40 CFR 60.4209(a);<br/> 40 CFR 60.4211(a);<br/> 40 CFR 60.4211(c);<br/> 40 CFR 60.4211(f)(1);<br/> 40 CFR 60.4211(f)(2)(i);<br/> 40 CFR 60.4211(f)(3);<br/> 40 CFR 60.4214(b);<br/> 40 CFR 60.4214(d);<br/> 40 CFR 60.4214(g)-(j);<br/> 40 CFR 60.4218;<br/> 40 CFR 60.4219; and<br/> 40 CFR pt. 60, subp. IIII, Table 8.</p> <p>A copy of 40 CFR pt. 60, subp. IIII is included in Appendix D.</p> <p>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.6590(c), 40 CFR pt. 60, subp. IIII, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2305, Minn. R. 7011.8150]</p>                                                                                                                                                                              |
| 5.53.13            | <p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <p>40 CFR 60.1;<br/> 40 CFR 60.2;<br/> 40 CFR 60.3;<br/> 40 CFR 60.4;<br/> 40 CFR 60.5;<br/> 40 CFR 60.6;<br/> 40 CFR 60.7;<br/> 40 CFR 60.8;<br/> 40 CFR 60.9;<br/> 40 CFR 60.10;<br/> 40 CFR 60.12;<br/> 40 CFR 60.13;<br/> 40 CFR 60.14;<br/> 40 CFR 60.15;<br/> 40 CFR 60.16;<br/> 40 CFR 60.17; and<br/> 40 CFR 60.19.</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 60.4218(a), 40 CFR 63.6590(c), 40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. IIII(Table 8), Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2305, Minn. R. 7011.8150, Minn. R. 7017.1010 &amp; 7017.2015, subp. 2, Minn. R. 7019.0100]</p> |
| <b>EQUI 219</b>    | <b>Make-Up Air Unit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 5.54.1             | Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]                                                                                                                                                                                                                                                                                                                                                                 |
| 5.54.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]                                                                                                                                                                                                                                                         |
| <b>EQUI 225</b>    | <b>DDGS Storage Building Handling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.55.1             | Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [Minn. R. 7011.1005, subp. 3(A)]                                                                                                                                                                                                                                                                                                                    |
| 5.55.2             | The Permittee must limit the hours of DDGS loadout operations each day to the hours of 5AM to 7PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                                                                                                                                                                         |
| 5.55.3             | Hours of Operation: Daily Recordkeeping: On each day of operation, the Permittee must record the time that the first and last DDGS truck is received at the facility. This shall be based on written records or receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]                                                                                                                                                  |
| <b>EQUI 233</b>    | <b>Bin Unloading Conveyor 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.56.1             | <p>The Permittee is authorized to construct and operate EQUI 233, meeting the following design requirements: a conveyor with a maximum capacity of 120 tons of grain per hour.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                   |
| <b>EQUI 234</b>    | <b>Hammermill 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.57.1             | <p>The Permittee is authorized to construct and operate EQUI 234, meeting the following design requirements: milling equipment with a maximum capacity of 24 tons of grain per hour.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>             |
| <b>EQUI 235</b>    | <b>Hammermill #5 Conveyor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.58.1             | <p>The Permittee is authorized to construct and operate EQUI 235, meeting the following design requirements: a conveyor with a maximum design capacity of 24 tons of grain per hour.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>             |
| <b>EQUI 236</b>    | <b>Fermenter #14</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.59.1             | <p>The Permittee is authorized to construct and operate EQUI 236, meeting the following design requirements: fermentation equipment with a maximum capacity of 270,000 gallons of beer per hour.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>EQUI 237</b>    | <b>Fermenter #15</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.60.1             | <p>The Permittee is authorized to construct and operate EQUI 237, meeting the following design requirements: fermentation equipment with a capacity of 270,000 gallons of beer per hour.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The unit must meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>FUGI 1</b>      | <b>Truck Traffic - Paved Roads</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.61.1             | Fugitive Emissions: Do not cause or permit the transporting of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Do not cause or permit a road or a driveway to be constructed, used, repaired, or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne. [Minn. R. 7011.0150]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.61.2             | <p>Haul Road (roads used by trucks transporting grain, DDGS, ethanol or denaturant) requirements</p> <ul style="list-style-type: none"> <li>- All haul roads must be paved with hot mix asphalt or concrete except those sections specifically identified as unpaved in the modeling submittal of August 20, 2007.</li> <li>- The Permittee shall inspect all paved haul roads weekly for visible silt accumulation.</li> <li>- The Permittee shall sweep/clean all paved haul roads when silt has accumulated to a visible level on the road, whichever occurs first. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]</li> </ul>                                                                                                                                                    |
| 5.61.3             | <p>Haul Road (roads used by trucks transporting grain, DDGS, ethanol or denaturant) requirements</p> <ul style="list-style-type: none"> <li>- All haul roads must be paved with hot mix asphalt or concrete except those sections specifically identified as unpaved in the modeling submittal of August 20, 2007.</li> <li>- The Permittee shall inspect all paved haul roads daily for visible silt accumulation.</li> <li>- The Permittee shall sweep/clean all paved haul roads monthly or when silt has accumulated to a visible level on the road, whichever occurs first.</li> <li>- The Permittee shall install signs limiting vehicle speed to 10 mph plant-wide. The Permittee must post the speed limit in a highly visible location near the facility entrance. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</li> </ul> |
| 5.61.4             | The Permittee shall sweep/clean all paved roads at least once each calendar month. Anytime fugitive emissions are observed on facility roadways, the Permittee shall immediately eliminate fugitive emissions by sweeping those road segments and/or apply water or a chemical dust suppressant. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.61.5             | The facility shall maintain records of the paved surfaces inspection that includes the date of the inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.61.6             | Recordkeeping of Sweeping: The Permittee must record the time, date, and location that the facility paved surfaces were swept. [Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.61.7             | The facility shall maintain records of the weekly inspections that includes the date of the inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>FUGI 7</b>      | <b>Miscellaneous VOC Fugitives (non-tank farm) - Equipment Leaks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.62.1             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. VVa as follows:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                    | 40 CFR 60.480a(a)-(b);<br>40 CFR 60.481a;<br>40 CFR 60.482-1a(a);<br>40 CFR 60.482-1a(b);<br>40 CFR 60.482-1a(e);<br>40 CFR 60.482-1a(f);<br>40 CFR 60.482-1a(g);<br>40 CFR 60.482-2a;<br>40 CFR 60.482-3a;<br>40 CFR 60.482-4a;<br>40 CFR 60.482-5a;<br>40 CFR 60.482-6a;<br>40 CFR 60.482-7a;<br>40 CFR 60.482-8a;<br>40 CFR 60.482-9a;<br>40 CFR 60.482-10a;<br>40 CFR 60.483-1a;<br>40 CFR 60.483-2a;<br>40 CFR 60.484a(a)-(f);<br>40 CFR 60.485a;<br>40 CFR 60.486a;<br>40 CFR 60.487a(a)-(i);<br>40 CFR 60.488a; and<br>40 CFR 60.489a.<br><br>A copy of 40 CFR pt. 60, subp. VVa is included in Appendix E.<br><br>If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. VVa, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2900(D)] |
| 5.62.2             | Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency for Volatile Organic Compounds $\geq$ 95.0 percent, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent. [40 CFR 60.482-10a(b), Minn. R. 7011.2900(D)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.62.3             | Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency for Volatile Organic Compounds $\geq$ 95.0 percent, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 deg C. [40 CFR 60.482-10a(c), Minn. R. 7011.2900(D)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.62.4             | The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:<br><br>40 CFR 60.1(a);<br>40 CFR 60.1(b);<br>40 CFR 60.2;<br>40 CFR 60.3;<br>40 CFR 60.4;<br>40 CFR 60.7(a)(1);<br>40 CFR 60.7(a)(3);<br>40 CFR 60.7(a)(4);                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | 40 CFR 60.7(b);<br>40 CFR 60.8(b);<br>40 CFR 60.8(d);<br>40 CFR 60.8(e);<br>40 CFR 60.11(a);<br>40 CFR 60.12;<br>40 CFR 60.14(a);<br>40 CFR 60.14(b);<br>40 CFR 60.14(c);<br>40 CFR 60.14(e);<br>40 CFR 60.14(f);<br>40 CFR 60.14(g);<br>40 CFR 60.15;<br>40 CFR 60.17; and<br>40 CFR 60.19.<br><br>A copy of 40 CFR pt. 60, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, 40 CFR pt. 60, subp. VVa, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7011.2900(D), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]                                                                                       |
| <b>FUGI 15</b>     | <b>Cooling Tower 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.63.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.63.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>FUGI 16</b>     | <b>Cooling Tower 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.64.1             | Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.64.2             | Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>FUGI 20</b>     | <b>Fermenter and Beerwell Leaks (non-LDAR)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.65.1             | For the purposes of FUGI 20, the listed terms shall have the following specific definitions.<br><br>"Connector" means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors.<br><br>"Equipment" means each component on top of all fermenters and the beer well, including pressure relief and/or vacuum breaker valves, valve, agitators, access doors (i.e., manways), and connectors.<br><br>"First attempt at repair" means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.<br><br>"In organic HAP service" means a process unit that either contains or contacts a feedstock, byproduct, or product that contains an organic HAP, excluding any organic HAP used in manual cleaning |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | <p>activities. A process unit is no longer in organic HAP service after the unit has been emptied to the extent practicable (i.e., a unit with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.</p> <p>"Process unit" means each individual fermenter and beer well and the components assembled and connected by pipes or ducts that make up these units.</p> <p>"Process unit shutdown" means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:</p> <ol style="list-style-type: none"> <li>1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours.</li> <li>2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.</li> <li>3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.</li> </ol> <p>"Quarter" means a 3-month period; the first quarter concludes on the last day of the last full month during the 90 days following permit issuance.</p> <p>"Repaired" means equipment is adjusted or otherwise altered, in order to eliminate a leak as defined in FUGI 20 and is re-monitored as specified in FUGI 20 to verify that emissions from the equipment are below the applicable leak definition. [Minn. R. 7007.0800, subp. 2(A)]</p> |
| 5.65.2             | <p>The Permittee shall maintain a Master Component List at the facility that contains the following information for each component:</p> <ol style="list-style-type: none"> <li>1) Current monitoring frequency;</li> <li>2) Type of component (pressure relief valve, vacuum breaker valve, valve, agitator, access door, or connector);</li> <li>3) Equipment description and ID (e.g., EQUI 12 - Fermenter #6) of associated equipment;</li> <li>4) Unit identification for the component;</li> <li>5) Date the component was added; and</li> <li>6) Date the component was removed.</li> </ol> <p>The Permittee shall update the Master Component List as soon as practical after adding, modifying, or replacing components. The Master Component List shall be readily available on-site. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.65.3             | <p>The Permittee shall identify and affix a label with a unique number for each individual component on each fermenter and beer well. The components that need to be labeled are as follows:</p> <ol style="list-style-type: none"> <li>1) Pressure relief valves;</li> <li>2) Vacuum breaker valves;</li> <li>3) Valves;</li> <li>4) Agitators;</li> <li>5) Access doors (i.e., manways); and</li> <li>6) Connectors.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | The label must be identified in the Master Component List at the facility. The label can be affixed by placard, stencil, or other means. The label must be maintained so that it is readable and visible at all times. If components are added or replaced, they must be given a new unique label. Labels from replaced or removed components must not be reused. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                |
| 5.65.4             | <p>Leak Monitoring for Valves - The Permittee shall conduct monthly monitoring, except as described below, for each valve in the Master Component List to detect leaks using the methods and leak definitions specified in FUGI 20 of this permit.</p> <p>Any component for which a leak is not detected for 2 successive months may be monitored quarterly, beginning with the next quarter, until a leak is detected. If a leak is detected, the component shall return to monthly monitoring, beginning with the next month, until a leak is not detected for 2 successive months. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.65.5             | Leak Monitoring for Connectors, Agitators, Access doors, and Pressure relief, and Vacuum Breaker Valves - The Permittee shall conduct quarterly monitoring for each connector, agitator, access door, pressure relief valve, and vacuum breaker valve in the Master Component List to detect leaks using the methods and leak definitions specified in FUGI 20 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                |
| 5.65.6             | Quarterly monitoring events must be separated by at least 30 calendar days. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.65.7             | <p>During monitoring events, the Permittee shall ensure the following:</p> <ol style="list-style-type: none"> <li>1) Components are not isolated from the combined fermenter and beer well gas header system; and</li> <li>2) The fermenters and beer well are operated under normal operating conditions as defined in this permit. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 4, Title I Condition: Avoid major source under 40 CFR 63.2]</li> </ol>                                                                                                                                                                                                              |
| 5.65.8             | Leak Definition for Pressure Relief Valves and Vacuum Breaker Valves: The Permittee shall maintain and operate all pressure relief valves and vacuum breaker valves with no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                           |
| 5.65.9             | Leak Definition for Access Doors, Agitators, Connectors, and Valves: The Permittee shall maintain and operate all access doors, agitators, and connectors with an instrument reading of less than 10,000 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                           |
| 5.65.10            | <p>Method 21 of Appendix A-7 to 40 CFR pt. 60 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:</p> <ol style="list-style-type: none"> <li>1) Zero air (less than 10 ppm of hydrocarbon in air); and</li> <li>2) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Title I Condition: Avoid major source under 40 CFR 63.2]</li> </ol>                                                                     |
| 5.65.11            | For no detectable emission monitoring in FUGI 20, the Permittee shall use Method 21 of Appendix A-7 to 40 CFR pt. 60 to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                            |
| 5.65.12            | When a leak is detected, a first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.65.13            | When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9 - Standards: Delay of repair (DOR). In the event the Permittee places a component on the DOR list, the Permittee must include in the semiannual report the rationale for placing the component on the DOR list. For the purposes of FUGI 20 of this permit, the term "equipment" used in 40 CFR 60.482-9 shall have the meaning specified in FUGI 20 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.65.14            | When the leak repair is made, repair verification monitoring must be done within 5 calendar days of the repair to confirm the repair was successful. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.65.15            | First attempts at repair include, but are not limited to, the following best practices where practicable:<br>1) Tightening of bonnet bolts;<br>2) Replacement of bonnet bolts;<br>3) Tightening of packing gland nuts;<br>4) Injection of lubricant into lubricated packing; and<br>5) Ensuring that the seal flush is operating at design pressure and temperature. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.65.16            | The Permittee must maintain a supply of replacement parts adequate to accomplish potential repairs of components in the Master Component List for this program. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.65.17            | Anytime pressure relief valves and/or vacuum breaker valves open (i.e., pressure release), the Permittee shall return the device to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background, as soon as practicable, but no later than 5 calendar days after the opening, except as described in 40 CFR 60.482-9 - Standards: Delay of repair (DOR). For the purposes of FUGI 20 of this permit, the term "equipment" used in 40 CFR 60.482-9 shall have the meaning specified in FUGI 20 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.65.18            | The Permittee shall conduct monitoring within 5 calendar days after a pressure release valve or vacuum breaker valve opening to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.65.19            | Each vessel that is equipped with an access hatch (i.e., manway) must be closed at all times when it is in organic HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. An access hatch opening when in organic HAP service is considered a deviation as defined in Minn. R. 7007.0100, subp. 8a and must be reported. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.65.20            | The Permittee may designate a component as unsafe-to-monitor for the current monitoring period if personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of FUGI 20 for that specific monitoring period. If a component is deemed unsafe-to-monitor for a specific monitoring period, that component is exempt from the monitoring requirements in FUGI 20 only for that monitoring period. The Permittee shall maintain records of each individual component that is deemed as unsafe-to-monitor, an explanation of why the component is unsafe to monitor, and the plan for monitoring the component during the next monitoring period.<br><br>This evaluation is for each individual component and is for one monitoring period only. The Permittee needs to reevaluate the unsafe-to-monitor designation for each monitoring period if the Permittee desires to maintain the designation for a specific component. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: Avoid major source under 40 CFR 63.2] |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 5.65.21            | <p>The Permittee shall record and maintain the following records for the fermenter and beer well leak detection and repair program:</p> <ol style="list-style-type: none"> <li>1) The date and reason for each monitoring event;</li> <li>2) The background level measured during each monitoring;</li> <li>3) The maximum instrument reading measured at each component during each monitoring event, including repair verification - monitoring done following each repair attempt;</li> <li>4) The date the leak was detected and the dates of each attempt to repair the leak;</li> <li>5) Repair methods applied in each attempt to repair the leak;</li> <li>6) For any leaking component for which repair was delayed, the reason repair was delayed, why it was technologically infeasible to repair, and the date the repair was ultimately made;</li> <li>7) For any component that was designated as unsafe-to-monitor, an explanation for why the component is unsafe-to-monitor, and the plan for monitoring each component designated as unsafe-to-monitor;</li> <li>8) The date of each occurrence of pressure relief and vacuum breaker valve "opening" and associated monitoring confirming that the pressure relief and/or vacuum breaker valve returned to a condition of no detectable emissions;</li> <li>9) Instrument calibration logs and response time determinations per Method 21 of Appendix A-7 to 40 CFR pt. 60;</li> <li>10) The dates of process unit shutdowns; and</li> <li>11) The date of successful repair of the leak.</li> </ol> <p>These records shall be kept on-site for a minimum of 5 years. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.65.22            | <p>The Permittee shall perform a root cause analysis and take corrective actions for every component that is placed on the delay of repair (DOR) list. In the root cause analysis, the Permittee must determine the cause of the DOR. The Permittee shall identify and implement corrective actions to reduce the likelihood of similar events requiring the use of DOR. The Permittee shall maintain records of the root cause analysis and any corrective actions taken. These records shall be kept on-site for a minimum of 5 years. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>TREA 6</b>      | <b>Flaring</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.66.1             | <p>The Permittee shall vent emissions from EQUI 67 and 71 to TREA 6 whenever EQUI 67 and 71 operate, and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee shall document periods of non-operation of the control equipment. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.66.2             | <p>If the Permittee replaces or modifies TREA 6, such control equipment is subject to all of the requirements of TREA 6. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.66.3             | <p>The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds <math>\geq</math> 95 percent control efficiency. [CAAA of 1990, Minn. R. 7007.0100,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.66.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 98 percent control efficiency. Uncaptured emissions from ethanol loadout are accounted for at EQUI 224. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.66.5             | <p>The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. If visible emissions are identified, the Permittee must document the period of time that visible emissions are present and must report a deviation.</p> <p>If the Permittee conducts testing using EPA Reference Method 22 at the time of the event, and verifies that visible emissions were present for less than 5 minutes in a two-hour period, the Permittee does not need to report a deviation, but must maintain records of the test at the facility.</p> <p>The Permittee shall determine the presence of visible emissions using Reference Method 22 when requested by the Commissioner. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.66.6             | The flare must be operated with a flare flame or pilot flame (or an electronically controlled automatic igniter system) present at all times. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.66.7             | The flare shall be used only when the net heating value of the gas being combusted is greater than or equal to 300 Btu/scf if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f)(3). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.66.8             | <p>Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity and velocity <math>V_{max}</math>, as determined by the methods in 40 CFR 60.18(f)(3), (f)(4) and (f)(5) less than 60 ft/sec, except as provided below:</p> <ol style="list-style-type: none"> <li>1. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, equal to or greater than 60 ft/sec but less than 400 ft/sec are allowed if the net heating value of the gas being combusted is greater than 1,000 Btu/scf, and</li> <li>2. Steam-assisted and nonassisted flares designed for and operated with an exit velocity less than the velocity, <math>V_{max}</math>, and less than 400 ft/sec are allowed. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</li> </ol>                                                                        |
| 5.66.9             | Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, $V_{max}$ as determined by the method in 40 CFR 60.18(f)(6). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.66.10            | Flares shall be steam-assisted, air-assisted, or nonassisted. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| 5.66.11            | Monitoring Equipment: The Permittee shall install and maintain a thermocouple or other equivalent monitoring device for monitoring and recording the presence of a flame as required by this permit, at least once every 15 minutes. The monitoring equipment must be installed, in use, and properly maintained when the monitored flare is in operation. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.3(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.66.12            | Daily Inspections: The Permittee shall physically verify the operation of the flame recording device at least once every 24 hours to verify that it is working and recording properly. The Permittee shall maintain a record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.66.13            | Daily Visible Emissions Check: The Permittee shall conduct a visual observation of the flare at least once every 24 hours, when emissions are vented to the flare, to verify that there are no visible emissions. The Permittee shall maintain a record of the daily readings. [40 CFR 64.3(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.66.14            | The Permittee shall calibrate or replace the thermocouple or other equivalent monitoring device at least once every 12 months, or calibrate at the frequency stated in the manufacturer's specifications, and shall maintain a record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.66.15            | The Permittee shall operate and maintain the flare in conformance with its design and in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.66.16            | Annual Inspection: At least once per calendar year, the Permittee shall conduct an inspection of the operating systems of the control device. The Permittee shall maintain a record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.66.17            | <p>Recordkeeping: The Permittee shall record the date, times and duration of all periods during which:</p> <ol style="list-style-type: none"><li>1. the flare flame or all the pilot flames are absent;</li><li>2. visible emissions were documented;</li><li>3. whether or not emissions were being vented to the flare during periods of flame absence; and</li><li>4. whether or not emissions were being vented to the flare during periods of visible emissions.</li></ol> <p>If periods of flame absence or visible emissions are recorded when emissions are being vented to the flare, the emissions during that time shall be considered uncontrolled until flame presence and/or no visible emission conditions are restored. The period of time for which there is no flame, or there are visible emissions are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.66.18            | Recordkeeping of Flame Presence and Visible Emissions (VE) Observations: The Permittee shall maintain records of flame presence, VE observations, and other supporting information for at least five years following the date of such observations. The Permittee may maintain records on alternative media, such as computer files, provided that the use allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.66.19            | <p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"><li>- visible emissions are observed;</li><li>- the presence of a flame is not detected; or</li><li>- the flare or any of its components are found during the inspections to need repair.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | Corrective actions shall return the flame presence, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the flare. The Permittee shall keep a record of the type and date of any corrective action taken for each flare. [40 CFR 64.7(d), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.66.20            | Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.7(c), Minn. R. 7017.0200] |
| 5.66.21            | Response to excursions or exceedances. Upon detecting an excursion or exceedance, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR 64.7(d), Minn. R. 7017.0200]                |
| 5.66.22            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.66.23            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.66.24            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>TREA 7</b>      | <b>Hammermill #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.67.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | Permittee must vent emissions from all conveyors, elevators and milling equipment, including existing, modified, or new conveyors, elevators and milling equipment, to a fabric filter meeting the permit requirements for TREA 7. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                |
| 5.67.2             | <p>If the Permittee replaces or modifies TREA 7, such control equipment is subject to all of the requirements of TREA 7. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                              |
| 5.67.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.67.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 10$ micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                |
| 5.67.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 2.5$ micron $\geq 93$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.67.6             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.67.7             | <p>Daily Inspections: The Permittee shall do the following, once every 24 hours:</p> <ol style="list-style-type: none"> <li>1). Inspect the fabric filter stack STRU 29 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.</li> <li>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</li> </ol> |
| 5.67.8             | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                     |
| 5.67.9             | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.67.10            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.67.11            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.67.12            | <p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.67.13            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.67.14            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li> <li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li> <li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li> </ul> |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.67.15            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.67.16            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                              |
| 5.67.17            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                                         |
| 5.67.18            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                                               |
| 5.67.19            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                                 |
| <b>TREA 8</b>      | <b>Hammermill #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.68.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators and milling equipment, including existing, modified, or new conveyors, elevators and milling equipment, to a fabric filter meeting the permit requirements for TREA 8. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                           |
| 5.68.2             | If the Permittee replaces or modifies TREA 8, such control equipment is subject to all of the requirements of TREA 8. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                              |
| 5.68.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.68.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                      |
| 5.68.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq 93$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.68.6             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.68.7             | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 30 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.68.8             | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                         |
| 5.68.9             | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.68.10            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.68.11            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.68.12            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.68.13            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.68.14            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li> <li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li> <li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li> </ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.68.15            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                    | deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.68.16            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                         |
| 5.68.17            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                    |
| 5.68.18            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                          |
| 5.68.19            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                            |
| <b>TREA 9</b>      | <b>Hammermill #3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.69.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators and milling equipment, including existing, modified, or new conveyors, elevators and milling equipment, to a fabric filter meeting the permit requirements for TREA 9. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                      |
| 5.69.2             | <p>If the Permittee replaces or modifies TREA 9, such control equipment is subject to all of the requirements of TREA 9. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.69.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                      |
| 5.69.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 10$ micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                    | 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.69.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 93 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.69.6             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.69.7             | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 31 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                            |
| 5.69.8             | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                    |
| 5.69.9             | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.69.10            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.69.11            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.69.12            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br><ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200] |
| 5.69.13            | Pressure Drop $\geq$ 0.05 and $\leq$ 4.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.69.14            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li> <li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li> <li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li> </ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.69.15            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.69.16            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.69.17            | <p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.69.18            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                            |
| 5.69.19            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                              |
| <b>TREA 10</b>     | <b>Hammermill #4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.70.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators and milling equipment, including existing, modified, or new conveyors, elevators and milling equipment, to a fabric filter meeting the permit requirements for TREA 10. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                       |
| 5.70.2             | <p>If the Permittee replaces or modifies TREA 10, such control equipment is subject to all of the requirements of TREA 10. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.70.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                        |
| 5.70.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 10$ micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                     |
| 5.70.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 2.5$ micron $\geq 93$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                         |
| 5.70.6             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 5.70.7             | <p>Daily Inspections: The Permittee shall do the following, once every 24 hours:</p> <ol style="list-style-type: none"> <li>1). Inspect the fabric filter stack STRU 32 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.</li> <li>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</li> </ol>                                               |
| 5.70.8             | <p>Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                            |
| 5.70.9             | <p>Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.70.10            | <p>The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.70.11            | <p>Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.70.12            | <p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p> |
| 5.70.13            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                |
| 5.70.14            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | <p>values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.70.15            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.70.16            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.70.17            | <p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.70.18            | <p>As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 5.70.19            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                                                           |
| <b>TREA 11</b>     | <b>Grain Receiving #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.71.1             | Particulate Matter $\geq$ 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.71.2             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators, loading-unloading equipment, rolling equipment, and silos/bins, including existing, modified, or new conveyors, elevators, loading-unloading equipment, rolling equipment, and silos/bins, to a fabric filter meeting the permit requirements of TREA 11. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.71.3             | <p>If the Permittee replaces or modifies TREA 11, such control equipment is subject to all of the requirements of TREA 11. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                              |
| 5.71.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 79.2 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                   |
| 5.71.5             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency for Particulate Matter $\geq$ 80 percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.71.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 10 micron $\geq$ 74.4 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                |
| 5.71.7             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency for PM $<$ 10 micron $\geq$ 80.0 percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.71.8             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 2.5 micron $\geq$ 74.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.71.9             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | for PM < 2.5 micron >= 80.0 percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.71.10            | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.71.11            | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 23 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                         |
| 5.71.12            | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                 |
| 5.71.13            | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.71.14            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.71.15            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.71.16            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br><br>- visible emissions are observed; or<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br><br>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200] |
| 5.71.17            | Hood Certification and Evaluation: The Permittee must maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee must certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R.                                                                                                                                                                                                              |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                    | 7011.0072, subps. 2-4, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.71.18            | <p>Annual Hood Evaluation: The Permittee must measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 &amp; 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee must maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7011.0072, subp. 4, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.71.19            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.71.20            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025,</p> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.71.21            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.71.22            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                    |
| 5.71.23            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                               |
| 5.71.24            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                     |
| 5.71.25            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                       |
| <b>TREA 14</b>     | <b>Thermal Oxidizer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.72.1             | The Permittee must vent emissions from all dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, including existing, modified, or new dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, to a RTO meeting the permit requirements of TREA 14. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                    |
| 5.72.2             | If the Permittee replaces or modifies TREA 14, such control equipment is subject to all of the requirements of TREA 14. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.<br><br>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.72.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency (VOC as mass) or less than or equal to 10 parts per million. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid                                                                                                                                                                                                                                                                    |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.72.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Carbon Monoxide $\geq$ 90 percent control efficiency by RTO or less than or equal to 100 parts per million. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                              |
| 5.72.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 80.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.72.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 80.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.72.7             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 80.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.72.8             | Temperature $\geq$ 1634 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet (Minimum Temperature Limit), unless a new limit is set pursuant to Minn. R. 7017.0205, subp. 3, as detailed below. If the recorded 3-hour rolling average temperature is below the Minimum Temperature Limit, the VOC used during that time must be considered uncontrolled until the average temperature is above the Minimum Temperature Limit. This must be reported as a deviation. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                               |
| 5.72.9             | The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.72.10            | Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.3(b)(4)(ii), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.72.11            | Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                            |
| 5.72.12            | Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.72.13            | The Permittee shall maintain a continuous hard copy readout or computer disk file of the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.72.14            | Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.72.15            | Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.72.16            | Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.72.17            | For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit:<br>a. The control efficiency limit specified in this permit for this equipment (95% VOC, 90% CO, 80.0% PM, PM10 and PM2.5); or<br>b. The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.72.18            | Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.72.19            | Protocol for Re-Setting the Minimum Temperature Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the Minimum Temperature Limit is to be re-set, the re-set shall be based on the average temperature values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the temperature in the combustion chamber. The Permittee must calculate the average temperature from the combustion chamber by reducing the temperature data to an average temperature based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.<br><br>The Minimum Temperature Limit shall be re-set as follows:<br><br>- if the 3-hour average temperature recorded during the test is within 25 deg F of the limit, it shall not be re-set and the established Minimum Temperature Limit remains unchanged; or<br>- if the 3-hour average temperature is more than 25 deg F greater or less than the established limit, it shall be re-set as the average temperature of the performance test. Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test. |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | The new Minimum Temperature Limit determined using this Protocol shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                               |
| 5.72.20            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Minimum Temperature Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.72.21            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                  |
| 5.72.22            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing combustion chamber temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                            |
| 5.72.23            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                                   |
| 5.72.24            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                     |
| <b>TREA 15</b>     | <b>Grain Receiving #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.73.1             | Particulate Matter $\geq$ 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.73.2             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators, material handling equipment, and silos/bins, including existing, modified or new conveyors, elevators, material handling equipment, and silos/bins, to a fabric filter meeting the permit requirements for TREA 15. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.73.3             | If the Permittee replaces or modifies TREA 15, such control equipment is subject to all of the requirements of TREA 15. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.<br><br>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to                                                                                                                                                                                                                                              |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.73.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 79.2$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.73.5             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency for Particulate Matter $\geq 80$ percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.73.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq 74.4$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                    |
| 5.73.7             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency for PM < 10 micron $\geq 80.0$ percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.73.8             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq 74.4$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.73.9             | The Permittee shall operate and maintain control equipment such that it achieves a capture efficiency for PM < 2.5 micron $\geq 80.0$ percent capture efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.73.10            | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.73.11            | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 33 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.73.12            | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                         |
| 5.73.13            | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.73.14            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.73.15            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.73.16            | <p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p> |
| 5.73.17            | Hood Certification and Evaluation: The Permittee must maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee must certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7011.0072, subps. 2-4, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                  |
| 5.73.18            | Annual Hood Evaluation: The Permittee must measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee must maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7011.0072, subp. 4, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                         |
| 5.73.19            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                |
| 5.73.20            | Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    | <p>demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li> <li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li> <li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li> </ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.73.21            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.73.22            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.73.23            | <p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.73.24            | <p>As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.73.25            | <p>The Permittee shall maintain records of monitoring data, monitor performance data, corrective</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>TREA 17</b>     | <b>Packed-Gas Adsorption Column</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.74.1             | The Permittee must vent emissions from all dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment, and stripping equipment, including existing, modified, or new dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment, and stripping equipment, to a scrubber meeting the permit requirements for TREA 17. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                           |
| 5.74.2             | <p>If the Permittee replaces or modifies TREA 17, such control equipment is subject to all of the requirements of TREA 17. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                     |
| 5.74.3             | If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 17, and that change results in the construction of a new stack or a change to any stack parameter identified within Appendix B of this permit, any emissions that vent to the modified or new stack must comply with all the requirements of COMG 15. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                   |
| 5.74.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq 95$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.74.5             | <p>Water flow rate <math>\geq 10.0</math> gallons per minute (Flow Rate Limit) as determined during the 12/1/2017 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the water flow rate at least once every 24 hours. If the recorded flow rate is below the required limit, the emissions during that time must be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.74.6             | <p>Pressure Drop <math>\geq 1.0</math> and <math>\leq 12.0</math> inches of water (Pressure Drop Range Limit) as determined during the 12/1/2017 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the pressure drop at least once every 24 hours. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the</p>                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | pressure drop is considered out of range must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.74.7             | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.74.8             | <p>Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the water flow rate. The Permittee must calculate the average water flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Flow Rate Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Flow Rate Limit remains unchanged; or</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                    | <p>- if the lowest 1-hour average water flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run; or</p> <p>- if the lowest 1-hour average water flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run.</p> <p>The new Flow Rate Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                              |
| 5.74.9             | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.74.10            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.74.11            | Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee must record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.74.12            | <p>Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"><li>- the recorded flow rate is below the required rate;</li><li>- the recorded pressure drop is outside the required operating range; or</li><li>- the scrubber or any of its components are found during the inspections to need repair.</li></ul> <p>Corrective actions must return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the scrubber. The Permittee must keep a record of the type and date of any corrective action taken for each scrubber. [40 CFR 64.7(d), Minn. R. 7017.0200]</p> |
| 5.74.13            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.74.14            | Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.74.15            | The Permittee must calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and must maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.74.16            | The Permittee must operate and maintain the scrubber in accordance with the O & M Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.74.17            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                         |
| 5.74.18            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitoring downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                  |
| 5.74.19            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                       |
| <b>TREA 19</b>     | <b>Packed-Gas Adsorption Column</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.75.1             | The Permittee may not vent emission to TREA 19 and TREA 25 at the same time. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.75.2             | The Permittee must vent emissions from all fermentation equipment, including existing, modified, or new fermentation equipment, to a scrubber meeting the permit requirements of TREA 19. After treatment by TREA 19 or TREA 25, emissions may be vented to either STRU 8 (atm) or STRU 22 (RTO). [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]            |
| 5.75.3             | If the Permittee replaces or modifies TREA 19, such control equipment is subject to all of the requirements of TREA 19. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.<br><br>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.75.4             | If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 19, and that change results in the construction of a new stack or a change to any stack parameter identified within Appendix B of this permit, any emissions that vent to the modified or new stack must comply with all the requirements of COMG 14. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                        |
| 5.75.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency, or if the inlet is less than 200 ppm of VOC, then less than or equal to 20 ppm VOC. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I<br>Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.75.6             | <p>TREA 19 Operating Scenario 1 Water flow rate <math>\geq</math> 20.0 gallons per minute 3-hour average (Flow Rate Limit) when emissions are vented to RTO TREA 9 (control in series, vented to STRU 22) as determined during the 12/1/2017 performance test at STRU 22 (RTO), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the water flow rate at least once every 24 hours. If the recorded flow rate is below the required limit, the emissions during that time must be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.75.7             | <p>TREA 19 Operating Scenario 2 Water flow rate <math>\geq</math> 26.7 gallons per minute 3-hour average when emissions are vented to STRU 8 after control by TREA 19 (with or without venting to the CO2 skid)(STRU 8 OS1 and OS2), as determined during the 8/1/2024 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the water flow rate at least once every 24 hours when in operation. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.75.8             | <p>TREA 19 Operating Scenario 2 Scrubber Additive Flow Application Rate <math>\geq</math> 1.5 gallons per hour (Additive Rate Limit) as determined during the 8/1/2024 performance test, whenever emissions are vented to STRU 8 after control by TREA 19 (with or without venting to the CO2 skid) (COMG 14 OS 1 and OS 2), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must maintain the scrubber additive chemical type and solution concentration by weight equivalent or in excess of that utilized during the most recent performance test where compliance was demonstrated.</p> <p>The Permittee shall record the additive flow rate at least once every 24 hours when emissions are vented to the scrubber. If the recorded additive flow rate is below the required Additive Rate Limit, the acetaldehyde emissions during that time shall be considered uncontrolled until the additive flow rate is once again above the required Additive Rate Limit. The period of time for which the flow rate is below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.75.9             | <p>Recordkeeping of Operating Scenarios: Each day of operation the Permittee must record and maintain the hours of operation in TREA 19 OS 1 or 2.</p> <p>Operating Scenario Recordkeeping:<br/> The Permittee shall keep a log showing which operating scenario it is operating under at all times. The log shall be updated whenever making a change from one operating scenario to the other. The record shall at a minimum include the day and time the switch was made and the designation of the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | operating scenario. The log may be hand-written or electronic. Recordkeeping for hours in this operating scenario can be found at COMG 14. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subs. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.75.10            | <p>Pressure Drop <math>\geq 1.0</math> and <math>\leq 12.0</math> inches of water (Pressure Drop Range Limit) as determined during the 12/1/2017 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the pressure drop at least once every 24 hours. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.75.11            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li> <li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li> <li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li> </ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.75.12            | <p>Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                    | <p>During the performance test, the Permittee must continuously monitor the water flow rate. The Permittee must calculate the average water flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Flow Rate Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Flow Rate Limit remains unchanged; or</li><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run; or</li><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run.</li></ul> <p>The new Flow Rate Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.75.13            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.75.14            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.75.15            | <p>Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee must record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.75.16            | <p>Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"><li>- the recorded flow rate is below the required rate;</li><li>- the recorded pressure drop is outside the required operating range; or</li><li>- the scrubber or any of its components are found during the inspections to need repair.</li></ul> <p>Corrective actions must return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the scrubber. The Permittee must keep a record of the type and date of any corrective action taken for each scrubber. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.75.17            | <p>Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 5.75.18            | Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                         |
| 5.75.19            | The Permittee must calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and must maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.75.20            | The Permittee must operate and maintain the scrubber in accordance with the O & M Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.75.21            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                |
| 5.75.22            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitoring downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                         |
| 5.75.23            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                              |
| <b>TREA 20</b>     | <b>Silo Baghouse</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.76.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, separation equipment, and silos/bins, including existing, modified, or new conveyors, separation equipment, and silos/bins to a fabric filter meeting the permit requirements for TREA 20. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                              |
| 5.76.2             | <p>If the Permittee replaces or modifies TREA 20, such control equipment is subject to all of the requirements of TREA 20. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.76.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I                                                                                                                                                                                                                                                                                                                                                                                          |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.76.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                      |
| 5.76.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 93 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.76.6             | The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter $\geq$ 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.76.7             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.76.8             | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 17 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.76.9             | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                         |
| 5.76.10            | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.76.11            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.76.12            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.76.13            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br><br>- visible emissions are observed; or<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br><br>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible                                                                                                                                                                                                                                                                                                                            |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.76.14            | <p>Pressure Drop <math>\geq 0.05</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.76.15            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.76.16            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.76.17            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.76.18            | The Permittee shall maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.76.19            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                               |
| 5.76.20            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                                                                                                                                                                     |
| 5.76.21            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                       |
| <b>TREA 22</b>     | <b>Fluid Bed Baghouse</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.77.1             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from EQUI 23 to control equipment that meets or exceeds the requirements of TREA 22 whenever EQUI 23 operates, and operate and maintain control equipment that meets or exceeds the requirements of TREA 22 at all times that any emissions are vented to it. The Permittee must document periods of non-operation of the control equipment whenever any emissions unit vents to it. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.77.2             | <p>If the Permittee replaces or modifies TREA 22, such control equipment is subject to all of the requirements of TREA 22. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                          |
| 5.77.3             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.77.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.77.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 93 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.77.6             | Visible Emissions: The Permittee must check the fabric filter stack STRU 20 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions must be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions must be reported as a deviation.<br><br>During inclement weather, the Permittee must read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7011.0080, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                             |
| 5.77.7             | Pressure Drop: Recordkeeping of Pressure Drop. The Permittee must record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7011.0080, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.77.8             | Recordkeeping of Visible Emissions and Pressure Drop. The Permittee must record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7011.0080, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                |
| 5.77.9             | Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur:<br>- visible emissions are observed;<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br>Corrective actions must return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee must keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5] |
| 5.77.10            | Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7011.0075, subp. 3]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.77.11            | The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall:<br>A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I;<br>B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment;<br>C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification;                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                    | <p>D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts;</p> <p>E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods;</p> <p>F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders;</p> <p>G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment;</p> <p>H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and</p> <p>I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.77.12            | <p>Pressure Drop <math>\geq 0.01</math> and <math>\leq 4.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7011.0080, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5.77.13            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range</p> |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                |
| 5.77.14            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.77.15            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                    |
| <b>TREA 25</b>     | <b>Packed-Gas Adsorption Column</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.78.1             | The Permittee may not vent emission to TREA 19 and TREA 25 at the same time. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.78.2             | <p>The Permittee is authorized to construct and operate TREA 25, meeting the following design requirements: a scrubber operating between 2.0 and 12.0 inches of pressure and 22.0 gal/min water flow.</p> <p>The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The control equipment must meet all applicable permit requirements. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                      |
| 5.78.3             | The Permittee must vent emissions from all fermentation equipment, including existing, modified, or new fermentation equipment, to a scrubber meeting the permit requirements for TREA 25. After treatment by TREA 19 or TREA 25, emissions may be vented to either STRU 8 (atm) or STRU 22 (RTO). [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                           |
| 5.78.4             | <p>If the Permittee replaces or modifies TREA 25, such control equipment is subject to all of the requirements of TREA 25. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.78.5             | If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 25, and that change results in the construction of a new stack or a change to any stack parameter identified within Appendix B of this permit, any emissions that vent to the modified or new stack must comply with all the requirements of COMG 14. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                        |
| 5.78.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq$ 95 percent control efficiency, or if the inlet is less than 200 ppm of VOC, then less than or equal to 20 ppm VOC. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I<br>Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.78.7             | <p>TREA 25 Operating Scenario 1 - Water flow rate <math>\geq</math> 20.0 gallons per minute 3-hour average (Flow Rate Limit) when emissions are vented to RTO TREA 9 (control in series, vented to STRU 22); as determined during testing at STRU 22, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the water flow rate at least once every 24 hours. If the recorded flow rate is below the required limit, the emissions during that time must be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.78.8             | <p>TREA 25 Operating Scenario 2 - Water flow rate <math>\geq</math> 37.8 gallons per minute 3-hour average when emissions are vented to STRU 8 after control by TREA 19 (with or without venting to the CO2 skid) (COMG 14 OS 3 and OS 4), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the water flow rate at least once each day of operation. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.78.9             | <p>TREA 25 Operating Scenario 2 Scrubber Additive Flow Application Rate <math>\geq</math> 2.8 gallons per hour (Additive Rate Limit) or as determined during the most recent performance test, whenever emissions are venting to TREA 25, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must maintain the scrubber additive chemical type and solution concentration by weight equivalent or in excess of that utilized during the most recent performance test where compliance was demonstrated.</p> <p>The Permittee shall record the additive flow rate at least once each day of operation when emissions are vented to the scrubber. If the recorded additive flow rate is below the required Additive Rate Limit, the acetaldehyde emissions during that time shall be considered uncontrolled until the additive flow rate is once again above the required Additive Rate Limit. The period of time for which the flow rate is below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 5.78.10            | <p>Recordkeeping of Operating Scenarios: Each day of operation the Permittee must record and maintain the hours of operation in TREA 25 OS 1 or 2.</p> <p>Operating Scenario Recordkeeping:<br/> The Permittee shall keep a log showing which operating scenario it is operating under at all times. The log shall be updated whenever making a change from one operating scenario to the other. The record</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | shall at a minimum include the day and time the switch was made and the designation of the operating scenario. The log may be hand-written or electronic. Recordkeeping for hours in this operating scenario can be found at COMG 14. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.78.11            | <p>Pressure Drop <math>\geq 1.0</math> and <math>\leq 12.0</math> inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee must record the pressure drop at least once every 24 hours. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.78.12            | <p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p> <p>During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or</li><li>- if the 3-hour average pressure drop is below the minimum value of the established range, the new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; or</li><li>- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.</li></ul> <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.78.13            | <p>Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the established Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                    | <p>During the performance test, the Permittee must continuously monitor the water flow rate. The Permittee must calculate the average water flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Flow Rate Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Flow Rate Limit remains unchanged; or</li><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run; or</li><li>- if the lowest 1-hour average water flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run.</li></ul> <p>The new Flow Rate Limit shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.78.14            | <p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.78.15            | <p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.78.16            | <p>Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee must record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.78.17            | <p>Corrective Actions: The Permittee must take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"><li>- the recorded flow rate is below the required rate;</li><li>- the recorded pressure drop is outside the required operating range; or</li><li>- the scrubber or any of its components are found during the inspections to need repair.</li></ul> <p>Corrective actions must return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O &amp; M) Plan for the scrubber. The Permittee must keep a record of the type and date of any corrective action taken for each scrubber. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.78.18            | <p>Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 5.78.19            | Monitoring Equipment: The Permittee must install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                  |
| 5.78.20            | The Permittee must calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and must maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.78.21            | The Permittee must operate and maintain the scrubber in accordance with the O & M Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.78.22            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                         |
| 5.78.23            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitoring downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                  |
| 5.78.24            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]                                                                                                                                       |
| <b>TREA 26</b>     | <b>Hammermill 5 Baghouse</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.79.1             | The Permittee is authorized to construct and operate TREA 26, meeting the following design requirements: a baghouse operating between 0.1 and 6 inches of pressure.<br><br>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The control equipment must meet all applicable permit requirements. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                 |
| 5.79.2             | The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from all conveyors, elevators and milling equipment, including existing, modified, or new conveyors, elevators and milling equipment, to a fabric filter meeting the permit requirements of TREA 26. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0075, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.79.3             | If the Permittee replaces or modifies TREA 26, such control equipment is subject to all of the requirements of TREA 26. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                              |
| 5.79.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 99$ percent control efficiency. [Minn. R. 7011.0070, subp. 1(A), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.79.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 10$ micron $\geq 93$ percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0070, subp. 1(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                    |
| 5.79.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 2.5$ micron $\geq 93$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.79.7             | The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.79.8             | Daily Inspections: The Permittee shall do the following, once every 24 hours:<br>1). Inspect the fabric filter stack STRU 58 for any visible emissions during daylight hours, except during inclement weather. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation.<br>2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.79.9             | Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                         |
| 5.79.10            | Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.79.11            | The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.79.12            | Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.79.13            | Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                    | <ul style="list-style-type: none"> <li>- visible emissions are observed; or</li> <li>- the recorded pressure drop is outside the required operating range; or</li> <li>- the fabric filter or any of its components are found during the inspections to need repair.</li> </ul> <p>Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                               |
| 5.79.14            | <p>Pressure Drop <math>\geq 0.1</math> and <math>\leq 6.0</math> inches of water, unless a new range is set pursuant to Minn. R. 7017.0205, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the follow up compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7011.0080, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.79.15            | <p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5.79.16            | <p>As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.79.17            | <p>The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>TREA 27</b>     | <b>RTO 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.80.1             | <p>The Permittee is authorized to construct and operate TREA 27, meeting the following design requirements: a regenerative thermal oxidizer with a combustion temperature of 1634 degrees F, a residence time of 4.2 seconds, and a burner capacity of 30 MMBtu/hr.</p> <p>The authorization to start construction of this equipment expires 5 years after issuance of Air Emissions Permit No. 04500049-101 (July 25, 2029). The control equipment must meet all applicable permit requirements. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| 5.80.2             | The Permittee must vent emissions from all dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, including existing, modified, or new dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, to a thermal oxidizer meeting the permit requirements for TREA 27. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                             |
| 5.80.3             | <p>If the Permittee replaces or modifies TREA 27, such control equipment is subject to all of the requirements of TREA 27. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.80.4             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds $\geq 95$ percent control efficiency (VOC as mass) or less than or equal to 10 parts per million. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                             |
| 5.80.5             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Carbon Monoxide $\geq 90$ percent control efficiency by RTO or less than or equal to 100 parts per million. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                              |
| 5.80.6             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq 80.0$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                      |
| 5.80.7             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 10$ micron $\geq 80.0$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                        |
| 5.80.8             | The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM $< 2.5$ micron $\geq 80.0$ percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                       |
| 5.80.9             | Temperature $\geq 1634$ degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet (Minimum Temperature Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded 3-hour rolling average temperature is below the Minimum Temperature Limit, the VOC used during that time must be considered uncontrolled until the average temperature is above the Minimum Temperature Limit. This must be reported as a deviation. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]               |
| 5.80.10            | The Permittee must operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 5.80.11            | Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.3(b)(4)(ii), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                              |
| 5.80.12            | Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                         |
| 5.80.13            | Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5.80.14            | The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.80.15            | Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 5.80.16            | Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.80.17            | Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5.80.18            | For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee must use either one of the following when completing calculations as required elsewhere in this permit:<br>a. The control efficiency limit specified in this permit for this equipment (95% VOC, 90% CO, 80.0% PM, PM10, and PM2.5); or<br>b. The control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 5.80.19            | Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.80.20            | <p>Protocol for Re-Setting the Minimum Temperature Limit: The Permittee shall conduct performance testing to measure the VOC emission rate as required elsewhere in this permit. If the Minimum Temperature Limit is to be re-set, the re-set shall be based on the average temperature values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the temperature in the combustion chamber. The Permittee must calculate the average temperature from the combustion chamber by reducing the temperature data to an average temperature based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Minimum Temperature Limit shall be re-set as follows:</p> <ul style="list-style-type: none"> <li>- if the 3-hour average temperature recorded during the test is within 25 deg F of the limit, it shall not be re-set and the established Minimum Temperature Limit remains unchanged; or</li> <li>- if the 3-hour average temperature is more than 25 deg F greater or less than the established limit, it shall be re-set as the average temperature of the performance test. Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test.</li> </ul> <p>The new Minimum Temperature Limit determined using this Protocol shall be effective upon receipt of the follow up compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 5.80.21            | The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Minimum Temperature Limit required by this permit. [Minn. R. 7007.1500, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 5.80.22            | Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the follow up compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5.80.23            | Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing combustion chamber temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.80.24            | As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.80.25            | The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                               |
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|                    | microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200] |

## 6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>TFAC 1</b>      | <b>POET Biorefining - Preston</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.1.1              | The Permittee must submit an annual report by the 31st of January. The report must describe the changes made at the Facility during the previous calendar year using the latest MPCA application forms. The report must include information for any new, modified, or replaced Subject Items. The report must document the maximum actual material throughput, based on a three-hour block average as compared to the throughput limit over the reporting year. The report must be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee must verify and certify that the Facility has maintained minor source status for New Source Review. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6.1.2              | The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6.1.3              | The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6.1.4              | The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>COMG 14</b>     | <b>Fermentation Scrubber</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6.2.1              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions of VOC as mass (lb/hr) from STRU 8.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 14.</p> <p>Special Considerations-Worst-case venting Conditions Operating Scenario 2 (OS 2)</p> <ol style="list-style-type: none"> <li>1. All fermentation emissions must be controlled by TREA 19. Emissions may not be controlled by TREA 25.</li> <li>2. TREA 19 must be vented to STRU 8. Emissions may not be vented to the CO2 skid or TREA 22 (RTO) for control.</li> </ol> |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                    | <p>3. Short-term throughput limits and control equipment parameters determined during COMG 14 OS 2 testing will be used to set COMG 14 OS 1 short-term throughput limits and control equipment parameters.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6.2.2              | <p>HAPs - Single: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to verify the emission factors for speciated HAPs (lb/hr) from STRU 8.</p> <p>The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this COMG. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 14.</p> <p>Special Considerations-Worst-case venting conditions Operating Scenario 2 (OS 2)</p> <p>1. All fermentation emissions must be controlled by TREA 19. Emissions may not be controlled by TREA 25.</p> <p>2. TREA 19 must be vented to STRU 8. Emissions may not be vented to the CO2 skid or TREA 22 (RTO) for control.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 6.2.3              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 5/9/2029 and every 60 months thereafter to measure emissions of VOC as mass (lb/hr) from STRU 8. The first test is due by the date specified and all subsequent tests shall be completed every 60 months thereafter by the set due date (month and day) and as described below.</p> <p>The performance test must be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                    | <p>Process Throughput Limits at COMG 14.</p> <p>Special Considerations - Worst-case venting Conditions Operating Scenario 4 (OS 4)</p> <ol style="list-style-type: none"><li>1. All fermentation emissions must be controlled by TREA 19. Emissions may not be controlled by TREA 25.</li><li>2. TREA 19 must be vented to STRU 8. Emissions may not be vented to the CO2 skid or TREA 22 (RTO) for control.</li><li>3. Operating conditions and control equipment parameters determined during COMG 14, OS 2 testing will be used for COMG 14, OS 1 short-term throughput limits and control equipment parameters.</li></ol> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6.2.4              | <p>HAPs - Single: The Permittee must conduct performance test: Due 5/9/2029 to verify the emission factors for speciated HAPs from STRU 8. The first test is due by the date specified and all subsequent tests are due by the end of each 60-month period following that date.</p> <p>The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this stack. The performance test must be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 14.</p> <p>Special Considerations - Worst-case venting Conditions Operating Scenario 4 (OS 4)</p> <ol style="list-style-type: none"><li>1. All fermentation emissions must be controlled by TREA 19. Emissions may not be controlled by TREA 25.</li><li>2. TREA 19 must be vented to STRU 8. Emissions may not be vented to the CO2 skid or TREA 22 (RTO) for control.</li></ol> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 6.2.5              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 8 due 60 calendar days after the Permittee replaces any existing VOC-emitting fermentation equipment, adds new VOC-emitting fermentation equipment, or modifies the existing equipment in COMG 14. The performance test shall be conducted at worst-case conditions as defined</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 14. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6.2.6              | HAPs - Single: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 8 due 60 calendar days after the Permittee replaces any existing HAPs-emitting fermentation equipment, adds new HAPs-emitting fermentation equipment, or modifies the existing equipment in COMG 14. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 14. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                               |
| <b>COMG 15</b>     | <b>Distillation Scrubber</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.3.1              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due before 12/19/2028 and every 60 months thereafter to measure emissions of VOC as mass (lb/hr) from STRU 13.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 15.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.3.2              | <p>HAPs - Single: The Permittee shall conduct a performance test due before 12/19/2028 and every 60 months thereafter to verify the emission factors for speciated HAPs (lb/hr) from STRU 13.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                    | <p>Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 15.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6.3.3              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 13 due 60 calendar days after the Permittee replaces any existing VOC-emitting dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment and stripping equipment, adds new VOC-emitting dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment and stripping equipment, or modifies the existing equipment in COMG 15. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 15. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                     |
| 6.3.4              | <p>HAPs - Single: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 13 due 60 calendar days after the Permittee replaces any existing HAPs-emitting dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment and stripping equipment, adds new HAPs-emitting dehydrators, distillation equipment, fermentation equipment, liquefaction equipment, separation equipment and stripping equipment, or modifies the existing equipment in COMG 15. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 15. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| <b>COMG 16</b>     | <b>NSPS DD</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 6.4.1              | <p>Particulate Matter: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. [40 CFR 60.302(b)(1), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.2020, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6.4.2              | <p>Opacity: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure opacity. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 9, or other method approved by MPCA in the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                    | performance test plan approval. [40 CFR 60.302(b)(2), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.2020, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.4.3              | The Permittee shall submit a notification of anticipated date for conducting opacity observations: Due 30 calendar days before Opacity Observation Date. [40 CFR 60.7(a)(6), Minn. R. 7019.0100, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>COMG 17</b>     | <b>DDGS Silo</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 6.5.1              | The Permittee shall submit a notification: due 15 days after the date on which the processing aid for mitigation of Deoxynivalenol (DON) mycotoxin was used. The notification shall include the date on which the processing aid was first used at the facility for mitigation of DON mycotoxin. [Minn. R. 7007.0800, subp. 2(A)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.5.2              | <p>PM &lt; 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Permit Issuance Date and at a minimum every 60 months thereafter to measure emissions from STRU 17.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.5.3              | <p>PM &lt; 2.5 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Permit Issuance Date and at a minimum every 60 months thereafter to measure emissions from STRU 17.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                    | <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 6.5.4              | <p>Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after Permit Issuance Date and at a minimum every 60 months thereafter to measure emissions from STRU 17.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.5.5              | <p>Sulfur Dioxide: The Permittee shall conduct an initial performance test due 180 calendar days after start of Process Aid use and at a minimum every 60 months thereafter to measure emissions from STRU 17.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                    | <p>an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.5.6              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 17 due 60 calendar days after the Permittee replaces any existing PM10-emitting DDGS Silo equipment, adds new PM10-emitting DDGS Silo equipment, or modifies the existing equipment in COMG 17. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                       |
| 6.5.7              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 17 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting DDGS Silo equipment, adds new PM2.5-emitting DDGS Silo equipment, or modifies the existing equipment in COMG 17. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                             |
| 6.5.8              | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 17 due 60 calendar days after the Permittee replaces any existing PM-emitting DDGS Silo equipment, adds new PM-emitting DDGS Silo equipment, or modifies the existing equipment in COMG 17. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                      |

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| 6.5.9              | <p>Sulfur Dioxide: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 17 due 60 calendar days after the Permittee replaces any existing SO<sub>2</sub>-emitting DDGS Silo equipment, adds new SO<sub>2</sub>-emitting DDGS Silo equipment, or modifies the existing equipment in COMG 17. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 17. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>COMG 18</b>     | <b>Grain Handling Pit #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.6.1              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 33.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.6.2              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 33.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i)]</p>                                                                                                                                |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6.6.3              | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 33.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.6.4              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 33 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators, silos/bins and material handling equipment, adds new PM10-emitting conveyors, elevators, silos/bins and material handling equipment, or modifies the existing equipment in COMG 18. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                     |
| 6.6.5              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 33 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators, silos/bins and material handling equipment, adds new PM2.5-emitting conveyors, elevators, silos/bins and material handling equipment, or modifies the existing equipment in COMG 18. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                           |
| 6.6.6              | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions from STRU 33 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators, silos/bins and material handling equipment, adds new PM-emitting conveyors, elevators, silos/bins and material handling equipment, or modifies the existing equipment in COMG 18. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                    | operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 18. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>COMG 19</b>     | <b>Receiving Pit #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.7.1              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 23.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.7.2              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 23.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                         |
| 6.7.3              | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/29/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 23.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <p>months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                     |
| 6.7.4              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 23 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators, silos/bins, loading-unloading equipment and rolling equipment, adds new PM10-emitting conveyors, elevators, silos/bins, loading-unloading equipment and rolling equipment, or modifies the existing equipment in COMG 19. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.7.5              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 23 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators, silos/bins, loading-unloading equipment and rolling equipment, adds new PM2.5-emitting conveyors, elevators, silos/bins, loading-unloading equipment and rolling equipment, or modifies the existing equipment in COMG 19. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                       |
| 6.7.6              | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 23 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators, silos/bins loading-unloading equipment and rolling equipment, adds new PM-emitting conveyors, elevators, silos/bins, loading-unloading equipment and rolling equipment, or modifies the existing equipment in COMG 19. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source</p>                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                    | under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>COMG 21</b>     | <b>3-Chambered RTO</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6.8.1              | <p>Nitrogen Oxides: The Permittee shall conduct a performance test due before 5/9/2034 and every 120 months thereafter to verify the emission factor of 0.066 lb NOx/MMBtu from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                              |
| 6.8.2              | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.8.3              | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    | <p>according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6.8.4              | <p>Particulate Matter: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                  |
| 6.8.5              | <p>Carbon Monoxide: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.8.6              | <p>Sulfur Dioxide: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 22.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



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|                    | <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                 |
| 6.8.7              | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure VOC as mass emissions in lb/hr from STRU 22.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.8.8              | <p>HAPs - Single: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to verify the emission factors for speciated HAPs (lb/hr).</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <p>due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6.8.9              | <p>Nitrogen Oxides: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing NOx-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new NOx-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                        |
| 6.8.10             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing PM10-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM10-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.8.11             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM2.5-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                       |
| 6.8.12             | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions from STRU 22 due 60 calendar days after the Permittee replaces any existing PM-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.8.13             | Carbon Monoxide: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing CO-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new CO-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]     |
| 6.8.14             | Sulfur Dioxide: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing SO2-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new SO2-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                |
| 6.8.15             | Volatile Organic Compounds: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing VOC-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new VOC-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 6.8.16             | HAPs - Single: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 22 due 60 calendar days after the Permittee replaces any existing HAPs-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new HAPs-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                    | equipment, or modifies the existing equipment in COMG 21. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21. [Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>COMG 22</b>     | <b>RTO 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6.9.1              | <p>Nitrogen Oxides: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to verify the emission factor of 0.066 lb NOx/MMBtu from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.9.2              | <p>PM &lt; 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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|                    | <p>Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6.9.3              | <p>PM &lt; 2.5 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.9.4              | <p>Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                    | <p>amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6.9.5              | <p>Carbon Monoxide: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.9.6              | <p>Sulfur Dioxide: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                    | <p>stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6.9.7              | <p>Volatile Organic Compounds: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure VOC as mass emissions in lb/hr from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.9.8              | <p>HAPs - Single: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to verify the emission factors for</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                    | <p>speciated HAPs (lb/hr) from STRU 57.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| 6.9.9              | <p>Nitrogen Oxides: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing NOx-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new NOx-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.9.10             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing PM10-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM10-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.9.11             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



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|                    | STRU 57 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM2.5-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                           |
| 6.9.12             | Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing PM-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new PM-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                              |
| 6.9.13             | Carbon Monoxide: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing CO-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new CO-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 6.9.14             | Sulfur Dioxide: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing SO2-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new SO2-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 6.9.15             | Volatile Organic Compounds: The Permittee shall conduct a performance test to measure emissions from STRU 57 due 60 calendar days after the Permittee replaces any existing VOC-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new VOC-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) & (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                              |
| 6.9.16             | HAPs - Single: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 57 due 60 calendar days after the Permittee replaces any existing HAPs-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, adds new HAPs-emitting dryers/ovens, fermentation equipment, material handling equipment, and separation equipment, or modifies the existing equipment in COMG 22. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 22. [Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>COMG 23</b>     | <b>Hammermill #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.10.1             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 29.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.10.2             | PM < 2.5 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 29.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                    | <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                         |
| 6.10.3             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 29.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.10.4             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 29 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators and milling equipment, adds new PM10-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 23. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                 |
| 6.10.5             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 29 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators and milling equipment, adds new PM2.5-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 23. The performance test shall be conducted</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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|                    | at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6.10.6             | Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 29 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators and milling equipment, adds new PM-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 23. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 23. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>COMG 24</b>     | <b>Hammermill #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.11.1             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 30.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.11.2             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 30.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                    | <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6.11.3             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 30.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.11.4             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 30 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators and milling equipment, adds new PM10-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 24. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                 |
| 6.11.5             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 30 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators and milling equipment, adds new PM2.5-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 24. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| 6.11.6             | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 30 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators and milling equipment, adds new PM-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 24. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 24. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>COMG 25</b>     | <b>Hammermill #3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.12.1             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 31.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.12.2             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 31.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i)]</p>                                                                                                                                |

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|                    | and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6.12.3             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 31.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.12.4             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 31 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators and milling equipment, adds new PM10-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 25. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                 |
| 6.12.5             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 31 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators and milling equipment, adds new PM2.5-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 25. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.12.6             | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 31 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators and milling equipment, adds new PM-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 25. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                    | limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 25. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>COMG 26</b>     | <b>Hammermill #4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.13.1             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 32.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.13.2             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 32.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                         |
| 6.13.3             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 10/31/2029 and every 60 months thereafter to measure emissions in lb/hr from STRU 32.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                    | <p>operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                               |
| 6.13.4             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 32 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators and milling equipment, adds new PM10-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 26. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.13.5             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 32 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators and milling equipment, adds new PM2.5-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 26. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                       |
| 6.13.6             | <p>Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 32 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators and milling equipment, adds new PM-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 26. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 26. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                |
| <b>COMG 27</b>     | <b>Hammermill #5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6.14.1             | <p>PM &lt; 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>STRU 58.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.14.2             | <p>PM &lt; 2.5 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 58.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR</p>                            |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.14.3             | <p>Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions in lb/hr from STRU 58.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.14.4             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 58 due 60 calendar days after the Permittee replaces any existing PM10-emitting conveyors, elevators and milling equipment, adds new PM10-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 27. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 6.14.5             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 58 due 60 calendar days after the Permittee replaces any existing PM2.5-emitting conveyors, elevators and milling equipment, adds new PM2.5-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 27. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|                    | Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6.14.6             | Particulate Matter: The Permittee shall conduct a performance test to measure emissions in lb/hr from STRU 58 due 60 calendar days after the Permittee replaces any existing PM-emitting conveyors, elevators and milling equipment, adds new PM-emitting conveyors, elevators and milling equipment, or modifies the existing equipment in COMG 27. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 27. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                              |
| <b>EQUI 1</b>      | <b>Grain Receiving Pit 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6.15.1             | Opacity: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure opacity. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 9, or other method approved by MPCA in the performance test plan approval. [40 CFR 60.302(c)(1), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.2020, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6.15.2             | The Permittee shall submit a notification of anticipated date for conducting opacity observations: Due 30 calendar days before Opacity Observation Date. [40 CFR 60.7(a)(6), Minn. R. 7019.0100, subp. 1]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>EQUI 9</b>      | <b>Boiler #1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.16.1             | <p>Nitrogen Oxides: The Permittee shall conduct a performance test due before 7/19/2029 and every 120 months thereafter to verify the emission factor of 0.04 lb/MMBtu.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| <b>EQUI 14</b>     | <b>Boiler #2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.17.1             | <p>Nitrogen Oxides: The Permittee shall conduct a performance test due before 7/19/2029 and every 120 months thereafter to verify the emission factor of 0.04 lb/MMBtu.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 120 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test</p>                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|                    | <p>due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>EQUI 23</b>     | <b>Fluid Bed Cooler</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.18.1             | <p>The Permittee shall submit a notification: due 15 days after the date on which the processing aid for mitigation of Deoxynivalenol (DON) mycotoxin was used. The notification shall include the date on which the processing aid was first used at the facility for mitigation of DON mycotoxin. [Minn. R. 7007.0800, subp. 2(A)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6.18.2             | <p>Sulfur Dioxide: The Permittee shall conduct an initial performance test due 180 calendar days after start of Process Aid use and at a minimum every 60 months thereafter to measure emissions.</p> <p>The Commissioner will set the subsequent test frequency as stated in a follow up compliance letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the follow up compliance letter.</p> <p>If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.18.3             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due before 8/10/2028 and every 36 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 36 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                    | date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.18.4             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due before 8/10/2028 and every 36 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 36 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.18.5             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 8/10/2028 and every 36 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 36 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>    |
| 6.18.6             | <p>Volatile Organic Compounds: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions of VOC as mass (lb/hr).</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 23.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(A) &amp; (B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.18.7             | <p>HAPs - Single: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to verify the emission factors for speciated HAPs.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. At a minimum, the Permittee must test for acetaldehyde, acrolein, formaldehyde and methanol. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 23.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2]</p> |
| <b>EQUI 28</b>     | <b>Grain Receiving Pit 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6.19.1             | <p>Opacity: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure opacity. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 9, or other method approved by MPCA in the performance test plan approval. [40 CFR 60.302(c)(1), Minn. R. 7011.1005, subp. 2, Minn. R. 7017.2020, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.19.2             | <p>The Permittee shall submit a notification of anticipated date for conducting opacity observations: Due 30 calendar days before Opacity Observation Date. [40 CFR 60.7(a)(6), Minn. R. 7019.0100, subp. 1]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>EQUI 204</b>    | <b>Flour Receiver</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6.20.1             | <p>The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6.20.2             | <p>The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6.20.3             | <p>PM &lt; 10 micron: The Permittee shall conduct a performance test due 180 days after startup of EQUI 204 and every 60 months thereafter to measure emissions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                    | <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 204.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) &amp; (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                              |
| 6.20.4             | <p>PM &lt; 2.5 micron: The Permittee shall conduct a performance test due 180 days after startup of EQUI 204 and every 60 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 204.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| 6.20.5             | <p>Particulate Matter: The Permittee shall conduct a performance test due 180 days after startup of EQUI 204 and every 60 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 204.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i)]</p>                           |



| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                    | and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>EQUI 205</b>    | <b>Fermenter #12</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6.21.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.<br><br>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6.21.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.<br><br>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>EQUI 206</b>    | <b>Fermenter #13</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6.22.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.<br><br>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6.22.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.<br><br>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>EQUI 213</b>    | <b>Flour Receiver</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.23.1             | The Permittee shall submit a notification of equipment removal/dismantlement: Due 15 calendar days after Equipment Removal and/or Dismantlement Date. This notification shall specify which Subject Items (by ID#) were removed and on what date. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6.23.2             | PM < 10 micron: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions.<br><br>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 213.<br><br>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.<br><br>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000] |
| 6.23.3             | PM < 2.5 micron: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                    | <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 213.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>                                                                                                                                                 |
| 6.23.4             | <p>Particulate Matter: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to measure emissions.</p> <p>The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. This permit contains Short-Term Process Throughput limits. Short-Term Process Throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at EQUI 213.</p> <p>Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a follow up compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> |
| <b>EQUI 218</b>    | <b>Emergency Diesel Generator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6.24.1             | <p>The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6.24.2             | <p>The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 6.24.3             | <p>If the emergency stationary engine operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the Permittee must submit an annual report for each calendar year no later than March 31 of the following calendar year. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (<a href="https://cdx.epa.gov/">https://cdx.epa.gov/</a>). However, if the reporting form not</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|                    | available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4 and emailed to the MPCA as directed in Section 2 of this permit for other compliance submittals. Beginning on February 26, 2025, submit the annual report electronically according to 40 CFR 60.4214(g). [40 CFR 60.4214(d), 40 CFR 60.4214(g), 40 CFR 63.6590(c), Minn. R. 7011.2305, Minn. R. 7011.8150] |
| 6.24.4             | <p>The Permittee shall submit a notification of date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(1), 40 CFR 63.6590(c), Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 1]</p>                                                                     |
| 6.24.5             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(3), 40 CFR 63.6590(c), Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 1]                                                                                                                                                                                  |
| 6.24.6             | The Permittee shall submit a notification of anticipated date for conducting opacity observations: Due 30 calendar days before Opacity Observation Date. [40 CFR 60.7(a)(6), 40 CFR 63.6590(c), Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 1]                                                                                                                                                                                                                             |
| 6.24.7             | <p>The Permittee shall submit notification of the date construction of replacement began: Due 60 calendar days before Date of Construction or Replacement (or as soon as practicable). Submit the information specified in 40 CFR 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), 40 CFR 63.6590(c), Minn. R. 7011.0050, Minn. R. 7011.8150]</p>                                                         |
| <b>EQUI 233</b>    | <b>Bin Unloading Conveyor 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.25.1             | <p>The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                       |
| 6.25.2             | <p>The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                          |
| <b>EQUI 234</b>    | <b>Hammermill 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6.26.1             | <p>The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                                                       |
| 6.26.2             | <p>The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>                                                                                          |
| <b>EQUI 235</b>    | <b>Hammermill #5 Conveyor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6.27.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and                                                                                                                                                                                                                                                                      |

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|                    | the date construction began.                                                                                                                                                                                                                                                                                                                                                               |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| 6.27.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.                                                                                                                          |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| <b>EQUI 236</b>    | <b>Fermenter #14</b>                                                                                                                                                                                                                                                                                                                                                                       |
| 6.28.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.                                                                                                                                                       |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| 6.28.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.                                                                                                                          |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| <b>EQUI 237</b>    | <b>Fermenter #15</b>                                                                                                                                                                                                                                                                                                                                                                       |
| 6.29.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.                                                                                                                                                       |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| 6.29.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.                                                                                                                          |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                                                                                                                                                        |
| <b>FUGI 7</b>      | <b>Miscellaneous VOC Fugitives (non-tank farm) - Equipment Leaks</b>                                                                                                                                                                                                                                                                                                                       |
| 6.30.1             | The Permittee shall submit a report: Due semiannually, effective after Initial Startup, by the 31st of January and July that includes the information specified in 40 CFR 60.487a.                                                                                                                                                                                                         |
|                    | Beginning July 15, 2025, or once the report template for this subpart has been available on the CEDRI website for 1 year, whichever date is later, the Permittee must submit the semiannual compliance report to the EPA using the appropriate electronic report template on the CEDRI website for 40 CFR pt. 60, subp. VVa. [40 CFR 60.487a(a), 40 CFR 60.487a(g), Minn. R. 7011.2900(D)] |
| <b>FUGI 20</b>     | <b>Fermenter and Beerwell Leaks (non-LDAR)</b>                                                                                                                                                                                                                                                                                                                                             |
| 6.31.1             | The Permittee shall submit a report: Due semiannually, effective after Permit Issuance, by the 31st of January and July that includes the information specified in FUGI 20 of this Permit. This report must occur at the same time as the semiannual report required for FUGI 7 in Section 6 of this permit. [Minn. R. 7007.0800, subp. 6]                                                 |
| <b>TREA 25</b>     | <b>Packed-Gas Adsorption Column</b>                                                                                                                                                                                                                                                                                                                                                        |
| 6.32.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.                                                                                                                                                       |

| Requirement number | Requirement and citation                                                                                                                                                                                                                                          |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |
| 6.32.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |
| <b>TREA 26</b>     | <b>Hammermill 5 Baghouse</b>                                                                                                                                                                                                                                      |
| 6.33.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.                              |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |
| 6.33.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |
| <b>TREA 27</b>     | <b>RTO 2</b>                                                                                                                                                                                                                                                      |
| 6.34.1             | The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.                              |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |
| 6.34.2             | The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. |
|                    | The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]                                                                                                                                                               |

## 7. Appendices

### Appendix A. Insignificant activities and general applicable requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

| Minn. R.                          | Rule description of the activity                                                                                                                                                                           | General applicable requirement                                                                              |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Minn. R. 7007.1300, subp. 3(A)    | Fuel Use: space heaters fueled by kerosene, natural gas, or propane, less than 420,000 Btu/hr<br><i>3 Kerosene space heaters with a total capacity of 345,000 BTU/hr</i>                                   | PM <= 0.4 lb/MMBtu, depending on year constructed<br>Opacity <= 20% with exceptions<br>(Minn. R. 7011.0515) |
| Minn. R. 7007.1300, subp. 3(B)(2) | Indirect heating equipment with a heat input capacity less than 420,000 Btu/hour, etc.<br><i>2 front office furnaces and 2 plant office furnaces</i>                                                       | PM <= 0.6 or 0.4, depending on year constructed<br>Opacity <= 20% with exceptions<br>(Minn. R. 7011.0515)   |
| Minn. R. 7007.1300, subp. 3(D)    | Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D)<br><i>Quality assurance lab</i>                                                                                                  | PM, variable depending on airflow<br>Opacity <= 20%<br>(Minn. R. 7011.0715)                                 |
| Minn. R. 7007.1300, subp. 3(E)    | Brazing, soldering, torch-cutting, or welding equipment<br><i>Welding, brazing, and soldering operations</i>                                                                                               | PM, variable depending on airflow<br>Opacity <= 20%<br>(Minn. R. 7011.0715)                                 |
| Minn. R. 7007.1300, subp. 3(F)    | Individual units with potential emissions less than 2000 lb/year of certain pollutants<br><i>500-gallon diesel storage tank, 2 distillate tanks, CO2 skids and tanks, spray paint used for maintenance</i> | PM, variable depending on airflow<br>Opacity <= 20%<br>(Minn. R. 7011.0715)                                 |

## Appendix B. 40 CFR Part 60, Subpart A—General Provisions

### § 60.1 Applicability.

- (a) Except as provided in subparts B, Ba, and C of this part, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.
- (d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.*
- (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").
- (2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.
- (3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

### § 60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Affected facility* means, with reference to a stationary source, any apparatus to which a standard is applicable.

*Alternative method* means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

*Capital expenditure* means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of

Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

*Clean coal technology demonstration project* means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

*Commenced* means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

*Construction* means fabrication, erection, or installation of an affected facility.

*Continuous monitoring system* means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

*Electric utility steam generating unit* means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

*Equivalent method* means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

*Excess Emissions and Monitoring Systems Performance Report* is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

*Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

*Force majeure* means, for purposes of § 60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

*Isokinetic sampling* means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.



*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

*Monitoring device* means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

*Nitrogen oxides* means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

*One-hour period* means any 60-minute period commencing on the hour.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Particulate matter* means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Proportional sampling* means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

*Reactivation of a very clean coal-fired electric utility steam generating unit* means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO<sub>x</sub> burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

*Reference method* means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

*Repowering* means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

*Run* means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

*Shutdown* means the cessation of operation of an affected facility for any purpose.

*Six-minute period* means any one of the 10 equal parts of a one-hour period.

*Standard* means a standard of performance proposed or promulgated under this part.

*Standard conditions* means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

*Startup* means the setting in operation of an affected facility for any purpose.

*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part; and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Volatile Organic Compound* means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

### § 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m<sup>3</sup>—cubic meter

mg—milligram—10<sup>-3</sup> gram

mm—millimeter—10<sup>-3</sup> meter

Mg—megagram—10<sup>6</sup> gram

mol—mole

N—newton

ng—nanogram—10<sup>-9</sup> gram

nm—nanometer—10<sup>-9</sup> meter

Pa—pascal

s—second

V—volt

W—watt

Ω—ohm

μg—microgram—10<sup>-6</sup> gram

(b) Other units of measure:

Btu—British thermal unit

°C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

°F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO<sub>2</sub>—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H<sub>2</sub>O—water

H<sub>2</sub>S—hydrogen sulfide

H<sub>2</sub>SO<sub>4</sub>—sulfuric acid

N<sub>2</sub>—nitrogen

NO—nitric oxide

NO<sub>2</sub>—nitrogen dioxide

NO<sub>x</sub>—nitrogen oxides

O<sub>2</sub>—oxygen

SO<sub>2</sub>—sulfur dioxide

SO<sub>3</sub>—sulfur trioxide

SO<sub>x</sub>—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

#### § 60.4 Address.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following table.

| Table 1 to Paragraph (a) |                                                                                                                                                                                    |                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Region                   | Address                                                                                                                                                                            | State                                                                                        |
| I                        | Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk               | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.                     |
| II                       | Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278                    | New Jersey, New York, Puerto Rico, Virgin Islands.                                           |
| III                      | Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029                                                                                  | Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.             |
| IV                       | Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960                                                                                            | Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee. |
| V                        | Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590                                                      | Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.                                     |
| VI                       | Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102                | Arkansas, Louisiana, New Mexico, Oklahoma, Texas.                                            |
| VII                      | Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219                                                                                          | Iowa, Kansas, Missouri, Nebraska.                                                            |
| VIII                     | Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129 | Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.                                |
| IX                       | Director, Enforcement and Compliance                                                                                                                                               | Arizona, California, Hawaii and Nevada; the territories of American Samoa and                |

| Table 1 to Paragraph (a) |                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Region                   | Address                                                                                                                    | State                                                                                                                                                                                                                                                                                                                                                                               |
|                          | Assurance Division (ENF 2-1), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105 | Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau. |
| X                        | Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101    | Alaska, Oregon, Idaho, Washington.                                                                                                                                                                                                                                                                                                                                                  |

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska, Department of Environmental Conservation, Pouch O, Juneau, AK 99811.

(4) Arizona:

Arizona Department of Environmental Quality, Suite #160, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 301 West Jefferson Street, Phoenix, AZ 85003.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Department, 31 North Pinal Street, Building F, Florence, AZ 85132.

Note 1 to paragraph (b)(4):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador Air District, 810 Court Street, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 2551 W Avenue H, Lancaster, CA 93536.

Bay Area Air Quality Management District, 375 Beale Street, Suite 600, San Francisco, CA 94105.

Butte County Air Quality Management District, 629 Entler Avenue, Suite 15, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, Building E, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 330 Fair Lane, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.  
Feather River Air Quality Management District, 541 Washington Avenue, Yuba City, CA 95991.  
Glenn County Air Pollution Control District, 720 N Colusa Street, P.O. Box 351, Willows, CA 95988-0351.  
Great Basin Unified Air Pollution Control District, 157 Short Street, Bishop, CA 93514-3537.  
Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2839.  
Lake County Air Quality Management District, 2617 S Main St., Lakeport, CA 95453-5405.  
Lassen County Air Pollution Control District, 720 South St., Susanville, CA 96130.  
Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.  
Mendocino County Air Quality Management District, 306 E Gobbi Street, Ukiah, CA 95482-5511.  
Modoc County Air Pollution Control District, 202 W 4th Street, Alturas, CA 96101.  
Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.  
Monterey Bay Air Resources District, 24580 Silver Cloud Court, Monterey, CA 93940.  
North Coast Unified Air Quality Management District, 707 L Street, Eureka, CA 95501-3327.  
Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, Grass Valley, CA 95945-2509.  
Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.  
Placer County Air Pollution Control District, 110 Maple Street, Auburn, CA 95603.  
Sacramento Metropolitan Air Quality Management District, 777 12th Street, Suite 300, Sacramento, CA 95814-1908.  
San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.  
San Joaquin Valley Air Pollution Control District, 1990 E Gettysburg, Fresno, CA 93726.  
San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.  
Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.  
Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.  
Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.  
South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.  
Tehama County Air Pollution Control District, P.O. Box 1169 (1834 Walnut Street), Red Bluff, CA 96080-0038.  
Tuolumne County Air Pollution Control District, 2 South Green St., Sonora, CA 95370-4618.  
Ventura County Air Pollution Control District, 4567 Telephone Road, 2nd Floor, Ventura, CA 93003-5417.  
Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95618.

Note 2 to paragraph (b)(6):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(7) State of Colorado, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80222-1530.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(8) State of Connecticut, Compliance Analysis and Coordination Unit, Bureau of Air Management, Department of Energy and Environmental Protection, 79 Elm Street, 5th Floor, Hartford, CT 06106-5127.

(9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.

(12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 2827 Waimano Home Road, #130 Pearl City, HI 96782.

Note 4 to paragraph (b)(13):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(14) State of Idaho, Department of Health and Welfare, Statehouse, Boise, ID 83701.

(15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.

(16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.

(18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.

(19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division for Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave., Suite 303, Louisville, Kentucky 40203.

(20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.

Note:

For a list of delegated standards for Louisiana (excluding Indian country), see paragraph (e)(2) of this section.

(21) State of Maine, Maine Department of Environmental Protection, Bureau of Air Quality, 17 State House Station, Augusta, ME 04333-0017.

(22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.

(23) Commonwealth of Massachusetts, Massachusetts Department of Environmental Protection, Division of Air and Climate Programs, One Winter Street, Boston, MA 02108.



(24) State of Michigan: Michigan Department of Natural Resources and Environment, Air Quality Division, P.O. Box 30028, Lansing, Michigan 48909.

(25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.

(26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.

(27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.

(28) State of Montana: Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(29) State of Nebraska: Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.

Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502

(30) Nevada:

Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

Clark County Division of Air Quality, 500 S Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Northern Nevada Public Health, Air Quality Management Division, 1001 E 9th Street, Building B, Reno, NV 89512.

Note 7 to paragraph (b)(30):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(31) State of New Hampshire: New Hampshire Department of Environmental Services, Air Resources Division, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

(32) State of New Jersey: New Jersey Department of Environmental Protection, Division of Environmental Quality, Enforcement Element, John Fitch Plaza, CN-027, Trenton, NJ 08625.

(1) The following table lists the specific source and pollutant categories that have been delegated to the states in Region II. The (X) symbol is used to indicate each category that has been delegated.

|   | Subpart                                                                                                                                         | State      |          |             |                |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|-------------|----------------|
|   |                                                                                                                                                 | New Jersey | New York | Puerto Rico | Virgin Islands |
| D | Fossil-Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971 (Steam Generators and Lignite Fired Steam Generators) | X          | X        | X           | X              |

|    | Subpart                                                                                           | State      |          |             |                |
|----|---------------------------------------------------------------------------------------------------|------------|----------|-------------|----------------|
|    |                                                                                                   | New Jersey | New York | Puerto Rico | Virgin Islands |
| Da | Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978 | X          |          | X           |                |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                        | X          | X        | X           | X              |
| E  | Incinerators                                                                                      | X          | X        | X           | X              |
| F  | Portland Cement Plants                                                                            | X          | X        | X           | X              |
| G  | Nitric Acid Plants                                                                                | X          | X        | X           | X              |
| H  | Sulfuric Acid Plants                                                                              | X          | X        | X           | X              |
| I  | Asphalt Concrete Plants                                                                           | X          | X        | X           | X              |
| J  | Petroleum Refineries—(All Categories)                                                             | X          | X        | X           | X              |
| K  | Storage Vessels for Petroleum Liquids Constructed After June 11, 1973, and prior to May 19, 1978  | X          | X        | X           | X              |
| Ka | Storage Vessels for Petroleum Liquids Constructed After May 18, 1978                              | X          | X        | X           |                |
| L  | Secondary Lead Smelters                                                                           | X          | X        | X           | X              |
| M  | Secondary Brass and Bronze Ingot Production Plants                                                | X          | X        | X           | X              |
| N  | Iron and Steel Plants                                                                             | X          | X        | X           | X              |
| O  | Sewage Treatment Plants                                                                           | X          | X        | X           | X              |
| P  | Primary Copper Smelters                                                                           | X          | X        | X           | X              |
| Q  | Primary Zinc Smelters                                                                             | X          | X        | X           | X              |
| R  | Primary Lead Smelters                                                                             | X          | X        | X           | X              |
| S  | Primary Aluminum Reduction Plants                                                                 | X          | X        | X           | X              |
| T  | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                 | X          | X        | X           | X              |
| U  | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                        | X          | X        | X           | X              |
| V  | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                        | X          | X        | X           | X              |
| W  | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                       | X          | X        | X           | X              |
| X  | Phosphate Fertilizer Industry: Granular Triple Superphosphate                                     | X          | X        | X           | X              |
| Y  | Coal Preparation Plants                                                                           | X          | X        | X           | X              |
| Z  | Ferroalloy Production Facilities                                                                  | X          | X        | X           | X              |
| AA | Steel Plants: Electric Arc Furnaces                                                               | X          | X        | X           | X              |

|     | Subpart                                                                                            | State      |          |             |                |
|-----|----------------------------------------------------------------------------------------------------|------------|----------|-------------|----------------|
|     |                                                                                                    | New Jersey | New York | Puerto Rico | Virgin Islands |
| AAa | Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Plants                     | X          | X        | X           |                |
| BB  | Kraft Pulp Mills                                                                                   | X          | X        | X           |                |
| CC  | Glass Manufacturing Plants                                                                         | X          | X        | X           |                |
| DD  | Grain Elevators                                                                                    | X          | X        | X           |                |
| EE  | Surface Coating of Metal Furniture                                                                 | X          | X        | X           |                |
| GG  | Stationary Gas Turbines                                                                            | X          | X        | X           |                |
| HH  | Lime Plants                                                                                        | X          | X        | X           |                |
| KK  | Lead Acid Battery Manufacturing Plants                                                             | X          | X        |             |                |
| LL  | Metallic Mineral Processing Plants                                                                 | X          | X        | X           |                |
| MM  | Automobile and Light-Duty Truck Surface Coating Operations                                         | X          | X        |             |                |
| NN  | Phosphate Rock Plants                                                                              | X          | X        |             |                |
| PP  | Ammonium Sulfate Manufacturing Plants                                                              | X          | X        |             |                |
| QQ  | Graphic Art Industry Publication Rotogravure Printing                                              | X          | X        | X           | X              |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                       | X          | X        | X           |                |
| SS  | Industrial Surface Coating: Large Appliances                                                       | X          | X        | X           |                |
| TT  | Metal Coil Surface Coating                                                                         | X          | X        | X           |                |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                 | X          | X        | X           |                |
| VV  | Equipment Leaks of Volatile Organic Compounds in Synthetic Organic Chemical Manufacturing Industry | X          |          | X           |                |
| WW  | Beverage Can Surface Coating Industry                                                              | X          | X        | X           |                |
| XX  | Bulk Gasoline Terminals                                                                            | X          | X        | X           |                |
| FFF | Flexible Vinyl and Urethane Coating and Printing                                                   | X          | X        | X           |                |
| GGG | Equipment Leaks of VOC in Petroleum Refineries                                                     | X          |          | X           |                |
| HHH | Synthetic Fiber Production Facilities                                                              | X          |          | X           |                |
| JJJ | Petroleum Dry Cleaners                                                                             | X          | X        | X           |                |
| KKK | Equipment Leaks of VOC from Onshore Natural Gas Processing Plants                                  |            |          |             |                |
| LLL | Onshore Natural Gas Processing Plants; SO <sub>2</sub> Emissions                                   |            | X        |             |                |

|     | Subpart                                         | State      |          |             |                |
|-----|-------------------------------------------------|------------|----------|-------------|----------------|
|     |                                                 | New Jersey | New York | Puerto Rico | Virgin Islands |
| OOO | Nonmetallic Mineral Processing Plants           |            | X        | X           |                |
| PPP | Wool Fiberglass Insulation Manufacturing Plants |            | X        | X           |                |

(33) State of New Mexico: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. Note: For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (e)(1) of this section.

(34) New York: New York State Department of Environmental Conservation, 50 Wolf Road Albany, New York 12233, attention: Division of Air Resources.

(35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

(36) State of North Dakota, North Dakota Department of Environmental Quality, 918 East Divide Avenue, Bismarck, ND 58501-1947.

**Note:**

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(37) State of Ohio:

(i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.

(ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.

(iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

(iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.

(v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.

(vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.

(vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.

(viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

- (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
  - (x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
  - (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.
  - (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
  - (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
  - (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.
- (38) State of Oklahoma, State of Oklahoma Department of Environmental Quality, Air Quality Division, P.O. Box 1677, Oklahoma City, OK 73101-1677.
- (39) State of Oregon.
- (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Avenue, Portland, OR 97204-1390, <http://www.deq.state.or.us>.
  - (ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.
- (40)
- (i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.
  - (ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.
  - (iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.
- (41) State of Rhode Island, Rhode Island Department of Environmental Management, Office of Air Resources, 235 Promenade Street, Providence, RI 02908.
- (42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201.
- (43) State of South Dakota, Air Quality Program, Department of Agriculture and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181.
- (44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125

Preservation Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson Avenue, Memphis, Tennessee 38105.

(45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114-4820.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(47) State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Air Quality and Climate Division, Davis 2, One National Life Drive, Montpelier, VT 05620-3802.

(48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.

(49) *State of Washington.*

(i) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504-7600, <http://www.ecy.wa.gov/>

(ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352-4289, <http://www.bcaa.net/>

(iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA 98273-5202, <http://www.nwair.org/>

(iv) Olympic Regional Clean Air Agency (ORCAA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503-1128, <http://www.orcaa.org/>

(v) Puget Sound Clean Air Agency (PSCAA), 110 Union Street, Suite 500, Seattle, WA 98101-2038, <http://www.pscleanair.org/>

(vi) Spokane County Air Pollution Control Authority (SCAPCA), West 1101 College, Suite 403, Spokane, WA 99201, <http://www.scapca.org/>

(vii) Southwest Clean Air Agency (SWCAA), 1308 NE. 134th St., Vancouver, WA 98685-2747, <http://www.swcleanair.org/>

(viii) Yakima Regional Clean Air Authority (YRCAA), 6 South 2nd Street, Suite 1016, Yakima, WA 98901, <http://co.yakima.wa.us/cleanair/default.htm>

(ix) The following table lists the delegation status of the New Source Performance Standards for the State of Washington. An "X" indicates the subpart has been delegated, subject to all the conditions and limitations set forth in Federal law and the letters granting delegation. Some authorities cannot be delegated and are retained by EPA. Refer to the letters granting delegation for a discussion of these retained authorities. The dates noted at the end of the table indicate the effective dates of Federal rules that have been delegated. Authority for implementing and enforcing any amendments made to these rules after these effective dates are not delegated.

| NSPS Subparts Delegated to Washington Air Agencies |                      |                   |                    |                    |                    |                     |                                       |
|----------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------------------------|
| Subpart <sup>1</sup>                               | Washington           |                   |                    |                    |                    |                     |                                       |
|                                                    | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> YRCAA <sup>9</sup> |

| NSPS Subparts Delegated to Washington Air Agencies                                                                                  |                      |                   |                    |                    |                    |                     |                    |                    |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
| Subpart <sup>1</sup>                                                                                                                | Washington           |                   |                    |                    |                    |                     |                    |                    |
|                                                                                                                                     | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> | YRCAA <sup>9</sup> |
| A General Provisions                                                                                                                | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| B Adoption and Submittal of State Plans for Designated Facilities                                                                   |                      |                   |                    |                    |                    |                     |                    |                    |
| C Emission Guidelines and Compliance Times                                                                                          |                      |                   |                    |                    |                    |                     |                    |                    |
| Cb Large Municipal Waste Combustors that are Constructed on or before September 20, 1994 (Emission Guidelines and Compliance Times) |                      |                   |                    |                    |                    |                     |                    |                    |
| Cc Municipal Solid Waste Landfills (Emission Guidelines and Compliance Times)                                                       |                      |                   |                    |                    |                    |                     |                    |                    |
| Cd Sulfuric Acid Production Units (Emission Guidelines and Compliance Times)                                                        |                      |                   |                    |                    |                    |                     |                    |                    |
| Ce Hospital/Medical/Infectious Waste Incinerators (Emission Guidelines and Compliance Times)                                        |                      |                   |                    |                    |                    |                     |                    |                    |
| D Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971                                      | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Da Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Db Industrial-Commercial-Institutional Steam Generating Units                                                                       | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Dc Small Industrial-Commercial-Institutional Steam Generating Units                                                                 | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| E Incinerators                                                                                                                      | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Ea Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or before September 20, 1994       | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Eb—Large Municipal Waste Combustors                                                                                                 |                      | X                 |                    | X                  | X                  | X                   |                    |                    |
| Ec—Hospital/Medical/Infectious Waste Incinerators                                                                                   | X                    | X                 | X                  | X                  | X                  | X                   |                    |                    |
| F Portland Cement Plants                                                                                                            | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| G Nitric Acid Plants                                                                                                                | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| H Sulfuric Acid Plants                                                                                                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| I Hot Mix Asphalt Facilities                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| J Petroleum Refineries                                                                                                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |

## NSPS Subparts Delegated to Washington Air Agencies

| Subpart <sup>1</sup>                                                                                                                                             | Washington           |                   |                    |                    |                    |                     |                    |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
|                                                                                                                                                                  | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> | YRCAA <sup>9</sup> |
| K Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973 and prior to May 19, 1978          | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Ka Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and prior to July 23, 1984         | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Kb VOC Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984 | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| L Secondary Lead Smelters                                                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| M Secondary Brass and Bronze Production Plants                                                                                                                   | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| N Primary Emissions from Basic Oxygen Process Furnaces for which Construction is Commenced after June 11, 1973                                                   | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Na Secondary Emissions from Basic Oxygen Process Steel-making Facilities for which Construction is Commenced after January 20, 1983                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| O Sewage Treatment Plants                                                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| P Primary Copper Smelters                                                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Q Primary Zinc Smelters                                                                                                                                          | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| R Primary Lead Smelters                                                                                                                                          | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| S Primary Aluminum Reduction Plants <sup>10</sup>                                                                                                                | X                    |                   |                    |                    |                    |                     |                    |                    |
| T Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| U Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| V Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| W Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                    | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| X Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                                                                               | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Y Coal Preparation Plants                                                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| Z Ferroalloy Production Facilities                                                                                                                               | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |



| NSPS Subparts Delegated to Washington Air Agencies                                                                |                      |                   |                    |                    |                    |                     |                    |                    |
|-------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
| Subpart <sup>1</sup>                                                                                              | Washington           |                   |                    |                    |                    |                     |                    |                    |
|                                                                                                                   | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> | YRCAA <sup>9</sup> |
| AA Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974 and on or before August 17, 1983        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| AAa Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 7, 1983 | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| BB Kraft Pulp Mills <sup>11</sup>                                                                                 | X                    |                   |                    |                    |                    |                     |                    |                    |
| CC Glass Manufacturing Plants                                                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| DD Grain Elevators                                                                                                | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| EE Surface Coating of Metal Furniture                                                                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| GG Stationary Gas Turbines                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| HH Lime Manufacturing Plants                                                                                      | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| KK Lead-Acid Battery Manufacturing Plants                                                                         | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| LL Metallic Mineral Processing Plants                                                                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| MM Automobile and Light Duty Truck Surface Coating Operations                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| NN Phosphate Rock Plants                                                                                          | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| PP Ammonium Sulfate Manufacture                                                                                   | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| QQ Graphic Arts Industry: Publication Rotogravure Printing                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| RR Pressure Sensitive Tape and Label Surface Coating Standards                                                    | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| SS Industrial Surface Coating: Large Appliances                                                                   | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| TT Metal Coil Surface Coating                                                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| UU Asphalt Processing and Asphalt Roof Manufacture                                                                | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| VV Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing Industry                                    | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| WW Beverage Can Surface Coating Industry                                                                          | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| XX Bulk Gasoline Terminals                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| AAA New Residential Wood Heaters                                                                                  |                      |                   |                    |                    |                    |                     |                    |                    |
| BBB Rubber Tire Manufacturing Industry                                                                            | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| DDD VOC Emissions from Polymer Manufacturing Industry                                                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |

**NSPS Subparts Delegated to Washington Air Agencies**

| Subpart <sup>1</sup>                                                                                                                                                              | Washington           |                   |                    |                    |                    |                     |                    |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
|                                                                                                                                                                                   | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> | YRCAA <sup>9</sup> |
| FFF Flexible Vinyl and Urethane Coating and Printing                                                                                                                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| GGG Equipment Leaks of VOC in Petroleum Refineries                                                                                                                                | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| HHH Synthetic Fiber Production Facilities                                                                                                                                         | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| III VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes                                                                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| JJJ Petroleum Dry Cleaners                                                                                                                                                        | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| KKK Equipment Leaks of VOC from Onshore Natural Gas Processing Plants                                                                                                             | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| LLL Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                     | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| NNN VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations                                                                                  | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| OOO Nonmetallic Mineral Processing Plants                                                                                                                                         |                      |                   | X                  |                    | X                  |                     | X                  |                    |
| PPP Wool Fiberglass Insulation Manufacturing Plants                                                                                                                               | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| QQQ VOC Emissions from Petroleum Refinery Wastewater Systems                                                                                                                      | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| RRR VOCs from Synthetic Organic Chemical Manufacturing Industry Reactor Processes                                                                                                 | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| SSS Magnetic Tape Coating Facilities                                                                                                                                              | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| TTT Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                            | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| UUU Calciners and Dryers in Mineral Industries                                                                                                                                    | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| VVV Polymeric Coating of Supporting Substrates Facilities                                                                                                                         | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| WWW Municipal Solid Waste Landfills                                                                                                                                               | X                    | X                 | X                  | X                  | X                  | X                   | X                  | X                  |
| AAAA Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001 | X                    | X                 |                    | X                  | X                  | X                   |                    | X                  |
| BBBB Small Municipal Waste Combustion Units Constructed on or before August 30, 1999 (Emission Guidelines and Compliance Times)                                                   |                      |                   |                    |                    |                    |                     |                    |                    |
| CCCC Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November,                                                                 | X                    | X                 |                    | X                  | X                  | X                   |                    | X                  |

| NSPS Subparts Delegated to Washington Air Agencies                                                                                                                                                                                                                                                    |                      |                   |                    |                    |                    |                     |                    |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
| Subpart <sup>1</sup>                                                                                                                                                                                                                                                                                  | Washington           |                   |                    |                    |                    |                     |                    |                    |
|                                                                                                                                                                                                                                                                                                       | Ecology <sup>2</sup> | BCAA <sup>3</sup> | NWAPA <sup>4</sup> | ORCAA <sup>5</sup> | PSCAA <sup>6</sup> | SCAPCA <sup>7</sup> | SWCAA <sup>8</sup> | YRCAA <sup>9</sup> |
| 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001                                                                                                                                                                                                            |                      |                   |                    |                    |                    |                     |                    |                    |
| DDDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)                                                                                                                                   |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>1</sup> Any authority within any subpart of this part that is not delegable, is not delegated. Please refer to Attachment B to the delegation letters for a listing of the NSPS authorities excluded from delegation.                                                                            |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>2</sup> Washington State Department of Ecology, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.         |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>3</sup> Benton Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.                     |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>4</sup> Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.                                                                                                                                                                                                 |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>5</sup> Olympic Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.           |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>6</sup> Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.                                                                                                                                                                                                   |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>7</sup> Spokane County Air Pollution Control Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001. |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>8</sup> Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.                                                                                                                                                                                                        |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>9</sup> Yakima Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.            |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>10</sup> Subpart S of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Primary Aluminum Plants, pursuant to Washington Administrative Code 173-415-010.                                          |                      |                   |                    |                    |                    |                     |                    |                    |
| <sup>11</sup> Subpart BB of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Kraft and Sulfite Pulping Mills, pursuant to Washington State Administrative Code 173-405-012 and 173-410-012.           |                      |                   |                    |                    |                    |                     |                    |                    |

(50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.

(52) State of Wyoming, Department of Environmental Quality, Air Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, WY 82002.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, PR 00910, Attention: Air Quality Area Director (see table under § 60.4(b)(FF)(1)).

(55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, VI 00801.

(56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The delegation status table for New Source Performance Standards for Region VIII can be found online at <http://www2.epa.gov/region8/air-program>.

(d) The following tables list the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§ 60.4(b), 60.8(b), 60.9, 60.11(b), 60.11(e), 60.13(a), 60.13(d)(2), 60.13(g), 60.13(i).

(1) *Arizona*. The following table identifies delegations for Arizona:

**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|    | Subpart                                                                                            | Air pollution control agency |                 |             |              |
|----|----------------------------------------------------------------------------------------------------|------------------------------|-----------------|-------------|--------------|
|    |                                                                                                    | Arizona DEQ                  | Maricopa County | Pima County | Pinal County |
| A  | General Provisions                                                                                 | X                            | X               | X           | X            |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                               | X                            | X               | X           | X            |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                       | X                            | X               | X           | X            |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                         | X                            | X               | X           | X            |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                   | X                            | X               | X           | X            |
| E  | Incinerators                                                                                       | X                            | X               | X           | X            |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994 | X                            | X               | X           | X            |

**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                    |                |                 |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------|-----------------|
|    |                                                                                                                                                                            | Arizona<br>DEQ               | Maricopa<br>County | Pima<br>County | Pinal<br>County |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                                                                                      | X                            | X                  | X              |                 |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996                                                                     | X                            | X                  | X              |                 |
| F  | Portland Cement Plants                                                                                                                                                     | X                            |                    | X              | X               |
| G  | Nitric Acid Plants                                                                                                                                                         | X                            | X                  | X              | X               |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011                                                                 |                              | X                  | X              |                 |
| H  | Sulfuric Acid Plant                                                                                                                                                        | X                            | X                  | X              | X               |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 | X                            | X                  | X              | X               |
| J  | Petroleum Refineries                                                                                                                                                       | X                            |                    | X              | X               |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |                              |                    | X              |                 |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X                            | X                  | X              | X               |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     | X                            | X                  | X              | X               |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X                            | X                  | X              | X               |
| L  | Secondary Lead Smelters                                                                                                                                                    | X                            |                    | X              | X               |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            | X                  | X              | X               |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            | X                  | X              | X               |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            | X                            | X                  | X              | X               |
| O  | Sewage Treatment Plants                                                                                                                                                    | X                            | X                  | X              | X               |
| P  | Primary Copper Smelters                                                                                                                                                    | X                            |                    | X              | X               |
| Q  | Primary Zinc Smelters                                                                                                                                                      | X                            |                    | X              | X               |
| R  | Primary Lead Smelters                                                                                                                                                      | X                            |                    | X              | X               |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          | X                            | X                  | X              | X               |

**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|     | Subpart                                                                                                       | Air pollution control agency |                    |                |                 |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------|-----------------|
|     |                                                                                                               | Arizona<br>DEQ               | Maricopa<br>County | Pima<br>County | Pinal<br>County |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                             | X                            | X                  | X              | X               |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                    | X                            | X                  | X              | X               |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    | X                            | X                  | X              | X               |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   | X                            | X                  | X              | X               |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              | X                            | X                  | X              | X               |
| Y   | Coal Preparation and Processing Plants                                                                        | X                            | X                  | X              | X               |
| Z   | Ferroalloy Production Facilities                                                                              | X                            | X                  | X              | X               |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       | X                            | X                  | X              | X               |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 | X                            | X                  | X              | X               |
| BB  | Kraft Pulp Mills                                                                                              | X                            | X                  | X              | X               |
| BBa | Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013   |                              | X                  | X              |                 |
| CC  | Glass Manufacturing Plants                                                                                    | X                            | X                  | X              | X               |
| DD  | Grain Elevators                                                                                               | X                            | X                  | X              | X               |
| EE  | Surface Coating of Metal Furniture                                                                            | X                            | X                  | X              | X               |
| FF  | (Reserved)                                                                                                    |                              |                    |                |                 |
| GG  | Stationary Gas Turbines                                                                                       | X                            | X                  | X              | X               |
| HH  | Lime Manufacturing Plants                                                                                     | X                            | X                  | X              | X               |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        | X                            | X                  | X              | X               |
| LL  | Metallic Mineral Processing Plants                                                                            | X                            | X                  | X              | X               |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   | X                            | X                  | X              | X               |
| NN  | Phosphate Rock Plants                                                                                         | X                            | X                  | X              | X               |
| PP  | Ammonium Sulfate Manufacture                                                                                  | X                            | X                  | X              | X               |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       | X                            | X                  | X              | X               |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  | X                            | X                  | X              | X               |

**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|      | Subpart                                                                                                                                                                   | Air pollution control agency |                    |                |                 |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------|-----------------|
|      |                                                                                                                                                                           | Arizona<br>DEQ               | Maricopa<br>County | Pima<br>County | Pinal<br>County |
| SS   | Industrial Surface Coating: Large Appliances                                                                                                                              | X                            | X                  | X              | X               |
| TT   | Metal Coil Surface Coating                                                                                                                                                | X                            | X                  | X              | X               |
| UU   | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        | X                            | X                  | X              | X               |
| VV   | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                                                          | X                            | X                  | X              | X               |
| VVa  | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 | X                            | X                  | X              |                 |
| WW   | Beverage Can Surface Coating Industry                                                                                                                                     | X                            | X                  | X              | X               |
| XX   | Bulk Gasoline Terminals                                                                                                                                                   | X                            | X                  | X              | X               |
| AAA  | New Residential Wood Heaters                                                                                                                                              | X                            | X                  | X              | X               |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                                                        | X                            | X                  | X              | X               |
| CCC  | (Reserved)                                                                                                                                                                |                              |                    |                |                 |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        | X                            | X                  | X              | X               |
| EEE  | (Reserved)                                                                                                                                                                |                              |                    |                |                 |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          | X                            | X                  | X              | X               |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                            | X                            |                    | X              | X               |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   | X                            |                    | X              |                 |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                     | X                            | X                  | X              | X               |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                 | X                            | X                  | X              | X               |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                    | X                            | X                  | X              | X               |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                         | X                            | X                  | X              | X               |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                 | X                            | X                  | X              | X               |
| MMM  | (Reserved)                                                                                                                                                                |                              |                    |                |                 |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                          | X                            | X                  | X              | X               |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                     | X                            | X                  | X              | X               |

**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|       | Subpart                                                                                                                                                                                                | Air pollution control agency |                    |                |                 |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------|-----------------|
|       |                                                                                                                                                                                                        | Arizona<br>DEQ               | Maricopa<br>County | Pima<br>County | Pinal<br>County |
| PPP   | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                                                        | X                            | X                  | X              | X               |
| QQQ   | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                                               | X                            |                    | X              | X               |
| RRR   | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   | X                            | X                  | X              |                 |
| SSS   | Magnetic Tape Coating Facilities                                                                                                                                                                       | X                            | X                  | X              | X               |
| TTT   | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     | X                            | X                  | X              | X               |
| UUU   | Calciners and Dryers in Mineral Industries                                                                                                                                                             | X                            | X                  | X              |                 |
| VVV   | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  | X                            | X                  | X              | X               |
| WWW   | Municipal Solid Waste Landfills                                                                                                                                                                        | X                            | X                  | X              |                 |
| XXX   | Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014                                                                                       |                              | X                  | X              |                 |
| AAAA  | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           | X                            | X                  | X              |                 |
| CCCC  | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | X                            | X                  | X              |                 |
| EEEE  | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    | X                            | X                  | X              |                 |
| GGGG  | (Reserved)                                                                                                                                                                                             |                              |                    |                |                 |
| HHHH  | (Reserved)                                                                                                                                                                                             |                              |                    |                |                 |
| IIII  | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            | X                            | X                  | X              |                 |
| JJJJ  | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  |                              | X                  | X              |                 |
| KKKK  | Stationary Combustion Turbines                                                                                                                                                                         | X                            | X                  | X              |                 |
| LLLL  | New Sewage Sludge Incineration Units                                                                                                                                                                   |                              |                    | X              |                 |
| MMMM  | Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units                                                                                                                | X                            |                    |                |                 |
| OOOO  | Crude Oil and Natural Gas Production, Transmission, and Distribution                                                                                                                                   |                              | X                  | X              |                 |
| OOOOa | Standards of Performance for Crude Oil and Natural Gas Facilities for Which                                                                                                                            |                              | X                  | X              |                 |



**Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona**

|      | Subpart                                                                               | Air pollution control agency |                 |             |              |
|------|---------------------------------------------------------------------------------------|------------------------------|-----------------|-------------|--------------|
|      |                                                                                       | Arizona DEQ                  | Maricopa County | Pima County | Pinal County |
|      | Construction, Modification or Reconstruction Commenced After September 18, 2015       |                              |                 |             |              |
| QQQQ | Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces |                              | X               | X           |              |
| TTTT | Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units   |                              | X               | X           |              |

(2) *California*. The following tables identify delegations for each of the local air pollution control agencies of California.

(i) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|    | Subpart                                                                                                | Air pollution control agency |                      |               |                   |
|----|--------------------------------------------------------------------------------------------------------|------------------------------|----------------------|---------------|-------------------|
|    |                                                                                                        | Amador County APCD           | Antelope Valley AQMD | Bay Area AQMD | Butte County AQMD |
| A  | General Provisions                                                                                     |                              | X                    |               |                   |
| Ba | Adoption and Submittal of State Plans for Designated Facilities                                        |                              | X                    |               |                   |
| Cf | Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills                           |                              | X                    |               |                   |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                   |                              | X                    | X             |                   |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                           |                              | X                    | X             |                   |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                             |                              | X                    | X             |                   |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                       |                              | X                    | X             |                   |
| E  | Incinerators                                                                                           |                              | X                    | X             |                   |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994     |                              | X                    | X             |                   |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                  |                              | X                    |               |                   |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 |                              | X                    |               |                   |
| F  | Portland Cement Plants                                                                                 |                              | X                    | X             |                   |
| G  | Nitric Acid Plants                                                                                     |                              | X                    | X             |                   |

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                            |                     |                         |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------------|-------------------------|
|    |                                                                                                                                                                            | Amador<br>County<br>APCD     | Antelope<br>Valley<br>AQMD | Bay<br>Area<br>AQMD | Butte<br>County<br>AQMD |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011                                                                 |                              | X                          |                     |                         |
| H  | Sulfuric Acid Plant                                                                                                                                                        |                              | X                          | X                   |                         |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 |                              | X                          | X                   |                         |
| J  | Petroleum Refineries                                                                                                                                                       |                              | X                          | X                   |                         |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |                              | X                          |                     |                         |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     |                              | X                          | X                   |                         |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     |                              | X                          | X                   |                         |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 |                              | X                          | X                   |                         |
| L  | Secondary Lead Smelters                                                                                                                                                    |                              | X                          | X                   |                         |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               |                              | X                          | X                   |                         |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               |                              | X                          | X                   |                         |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |                              | X                          | X                   |                         |
| O  | Sewage Treatment Plants                                                                                                                                                    |                              | X                          | X                   |                         |
| P  | Primary Copper Smelters                                                                                                                                                    |                              | X                          | X                   |                         |
| Q  | Primary Zinc Smelters                                                                                                                                                      |                              | X                          | X                   |                         |
| R  | Primary Lead Smelters                                                                                                                                                      |                              | X                          | X                   |                         |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          |                              | X                          | X                   |                         |
| T  | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          |                              | X                          |                     |                         |
| U  | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 |                              | X                          | X                   |                         |
| V  | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                 |                              | X                          | X                   |                         |
| W  | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                |                              | X                          | X                   |                         |

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|     | Subpart                                                                                                       | Air pollution control agency |                            |                     |                         |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------------|-------------------------|
|     |                                                                                                               | Amador<br>County<br>APCD     | Antelope<br>Valley<br>AQMD | Bay<br>Area<br>AQMD | Butte<br>County<br>AQMD |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              |                              | X                          | X                   |                         |
| Y   | Coal Preparation and Processing Plants                                                                        |                              | X                          | X                   |                         |
| Z   | Ferroalloy Production Facilities                                                                              |                              | X                          | X                   |                         |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       |                              | X                          | X                   |                         |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 |                              | X                          | X                   |                         |
| BB  | Kraft Pulp Mills                                                                                              |                              | X                          | X                   |                         |
| BBa | Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013   |                              | X                          |                     |                         |
| CC  | Glass Manufacturing Plants                                                                                    |                              | X                          | X                   |                         |
| DD  | Grain Elevators                                                                                               |                              | X                          | X                   |                         |
| EE  | Surface Coating of Metal Furniture                                                                            |                              | X                          | X                   |                         |
| FF  | (Reserved)                                                                                                    |                              |                            |                     |                         |
| GG  | Stationary Gas Turbines                                                                                       |                              | X                          | X                   |                         |
| HH  | Lime Manufacturing Plants                                                                                     |                              | X                          | X                   |                         |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        |                              | X                          | X                   |                         |
| LL  | Metallic Mineral Processing Plants                                                                            |                              | X                          | X                   |                         |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   |                              | X                          | X                   |                         |
| NN  | Phosphate Rock Plants                                                                                         |                              | X                          | X                   |                         |
| PP  | Ammonium Sulfate Manufacture                                                                                  |                              | X                          | X                   |                         |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       |                              | X                          | X                   |                         |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  |                              | X                          | X                   |                         |
| SS  | Industrial Surface Coating: Large Appliances                                                                  |                              | X                          | X                   |                         |
| TT  | Metal Coil Surface Coating                                                                                    |                              | X                          | X                   |                         |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                            |                              | X                          | X                   |                         |

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|      | Subpart                                                                                                                                                                   | Air pollution control agency |                            |                     |                         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------------|-------------------------|
|      |                                                                                                                                                                           | Amador<br>County<br>APCD     | Antelope<br>Valley<br>AQMD | Bay<br>Area<br>AQMD | Butte<br>County<br>AQMD |
| VV   | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                                                          |                              | X                          | X                   |                         |
| VVa  | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 |                              | X                          |                     |                         |
| WW   | Beverage Can Surface Coating Industry                                                                                                                                     |                              | X                          | X                   |                         |
| XX   | Bulk Gasoline Terminals                                                                                                                                                   |                              |                            |                     |                         |
| AAA  | New Residential Wood Heaters                                                                                                                                              |                              | X                          | X                   |                         |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                                                        |                              | X                          | X                   |                         |
| CCC  | (Reserved)                                                                                                                                                                |                              |                            |                     |                         |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        |                              | X                          | X                   |                         |
| EEE  | (Reserved)                                                                                                                                                                |                              |                            |                     |                         |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          |                              | X                          | X                   |                         |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                            |                              | X                          | X                   |                         |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   |                              | X                          |                     |                         |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                     |                              | X                          | X                   |                         |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                 |                              | X                          |                     |                         |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                    |                              | X                          | X                   |                         |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                         |                              | X                          | X                   |                         |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                 |                              | X                          |                     |                         |
| MMM  | (Reserved)                                                                                                                                                                |                              |                            |                     |                         |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                          |                              | X                          | X                   |                         |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                     |                              | X                          | X                   |                         |
| PPP  | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                           |                              | X                          | X                   |                         |

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|      | Subpart                                                                                                                                                                                                | Air pollution control agency |                            |                     |                         |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------------|-------------------------|
|      |                                                                                                                                                                                                        | Amador<br>County<br>APCD     | Antelope<br>Valley<br>AQMD | Bay<br>Area<br>AQMD | Butte<br>County<br>AQMD |
| QQQ  | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                                               |                              | X                          |                     |                         |
| RRR  | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   |                              | X                          |                     |                         |
| SSS  | Magnetic Tape Coating Facilities                                                                                                                                                                       |                              | X                          | X                   |                         |
| TTT  | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     |                              | X                          | X                   |                         |
| UUU  | Calciners and Dryers in Mineral Industries                                                                                                                                                             |                              | X                          | X                   |                         |
| VVV  | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  |                              | X                          | X                   |                         |
| WWW  | Municipal Solid Waste Landfills                                                                                                                                                                        |                              | X                          |                     |                         |
| XXX  | Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014                                                                                       |                              | X                          |                     |                         |
| AAAA | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           |                              | X                          |                     |                         |
| CCCC | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 |                              | X                          |                     |                         |
| DDDD | Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units                                                                                                 |                              | X                          |                     |                         |
| EEEE | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    |                              | X                          |                     |                         |
| GGGG | (Reserved)                                                                                                                                                                                             |                              |                            |                     |                         |
| HHHH | (Reserved)                                                                                                                                                                                             |                              |                            |                     |                         |
| IIII | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            |                              | X                          |                     |                         |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  |                              | X                          |                     |                         |
| KKKK | Stationary Combustion Turbines                                                                                                                                                                         |                              | X                          |                     |                         |
| LLLL | New Sewage Sludge Incineration Units                                                                                                                                                                   |                              | X                          |                     |                         |
| MMMM | Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units                                                                                                                |                              | X                          |                     |                         |

**Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD**

|       | Subpart                                                                                                                                                     | Air pollution control agency |                      |               |                   |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|---------------|-------------------|
|       |                                                                                                                                                             | Amador County APCD           | Antelope Valley AQMD | Bay Area AQMD | Butte County AQMD |
| OOOO  | Crude Oil and Natural Gas Production, Transmission, and Distribution                                                                                        |                              | X                    |               |                   |
| OOOOa | Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015 |                              | X                    |               |                   |
| TTTT  | Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units                                                                         |                              | X                    |               |                   |
| UUUUa | Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units                                                            |                              | X                    |               |                   |

(ii) [Reserved]

(iii) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

**Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD**

|    | Subpart                                                                                                | Air pollution control agency |                          |                      |                  |
|----|--------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|----------------------|------------------|
|    |                                                                                                        | Glenn County APCD            | Great Basin Unified APCD | Imperial County APCD | Kern County APCD |
| A  | General Provisions                                                                                     |                              | X                        |                      | X                |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                   |                              | X                        |                      | X                |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                           |                              | X                        |                      | X                |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                             |                              | X                        |                      | X                |
| Dc | Small Industrial Steam Generating Units                                                                |                              | X                        |                      | X                |
| E  | Incinerators                                                                                           |                              | X                        |                      | X                |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994     |                              | X                        |                      |                  |
| Eb | Municipal Waste Combustors Constructed After September 20, 1994                                        |                              |                          |                      |                  |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 |                              |                          |                      |                  |

**Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                          |                      |                  |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|----------------------|------------------|
|    |                                                                                                                                                                            | Glenn County APCD            | Great Basin Unified APCD | Imperial County APCD | Kern County APCD |
| F  | Portland Cement Plants                                                                                                                                                     |                              | X                        |                      | X                |
| G  | Nitric Acid Plants                                                                                                                                                         |                              | X                        |                      | X                |
| H  | Sulfuric Acid Plants                                                                                                                                                       |                              | X                        |                      |                  |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 |                              | X                        |                      | X                |
| J  | Petroleum Refineries                                                                                                                                                       |                              | X                        |                      | X                |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     |                              | X                        |                      | X                |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     |                              | X                        |                      | X                |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 |                              | X                        |                      | X                |
| L  | Secondary Lead Smelters                                                                                                                                                    |                              | X                        |                      | X                |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               |                              | X                        |                      | X                |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               |                              | X                        |                      | X                |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |                              | X                        |                      | X                |
| O  | Sewage Treatment Plants                                                                                                                                                    |                              | X                        |                      | X                |
| P  | Primary Copper Smelters                                                                                                                                                    |                              | X                        |                      | X                |
| Q  | Primary Zinc Smelters                                                                                                                                                      |                              | X                        |                      | X                |
| R  | Primary Lead Smelters                                                                                                                                                      |                              | X                        |                      | X                |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          |                              | X                        |                      | X                |
| T  | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          |                              | X                        |                      | X                |
| U  | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 |                              | X                        |                      | X                |

**Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD**

|     | Subpart                                                                                                       | Air pollution control agency |                          |                      |                  |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|----------------------|------------------|
|     |                                                                                                               | Glenn County APCD            | Great Basin Unified APCD | Imperial County APCD | Kern County APCD |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    |                              | X                        |                      | X                |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   |                              | X                        |                      | X                |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              |                              | X                        |                      | X                |
| Y   | Coal Preparation Plants                                                                                       |                              | X                        |                      | X                |
| Z   | Ferroalloy Production Facilities                                                                              |                              | X                        |                      | X                |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       |                              | X                        |                      | X                |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 |                              | X                        |                      | X                |
| BB  | Kraft pulp Mills                                                                                              |                              | X                        |                      | X                |
| CC  | Glass Manufacturing Plants                                                                                    |                              | X                        |                      | X                |
| DD  | Grain Elevators                                                                                               |                              | X                        |                      | X                |
| EE  | Surface Coating of Metal Furniture                                                                            |                              | X                        |                      | X                |
| FF  | (Reserved)                                                                                                    |                              |                          |                      |                  |
| GG  | Stationary Gas Turbines                                                                                       |                              | X                        |                      | X                |
| HH  | Lime Manufacturing Plants                                                                                     |                              | X                        |                      | X                |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        |                              | X                        |                      | X                |
| LL  | Metallic Mineral Processing Plants                                                                            |                              | X                        |                      | X                |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   |                              | X                        |                      | X                |
| NN  | Phosphate Rock Plants                                                                                         |                              | X                        |                      | X                |
| PP  | Ammonium Sulfate Manufacture                                                                                  |                              | X                        |                      | X                |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       |                              | X                        |                      | X                |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  |                              | X                        |                      | X                |



**Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD**

|     | Subpart                                                                                                                                   | Air pollution control agency |                          |                      |                  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|----------------------|------------------|
|     |                                                                                                                                           | Glenn County APCD            | Great Basin Unified APCD | Imperial County APCD | Kern County APCD |
| SS  | Industrial Surface Coating: Large Appliances                                                                                              |                              | X                        |                      | X                |
| TT  | Metal Coil Surface Coating                                                                                                                |                              | X                        |                      | X                |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                                                        |                              | X                        |                      | X                |
| VV  | Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry                                                          |                              | X                        |                      | X                |
| WW  | Beverage Can Surface Coating Industry                                                                                                     |                              | X                        |                      | X                |
| XX  | Bulk Gasoline Terminals                                                                                                                   |                              |                          |                      |                  |
| AAA | New Residential Wool Heaters                                                                                                              |                              | X                        |                      | X                |
| BBB | Rubber Tire Manufacturing Industry                                                                                                        |                              | X                        |                      | X                |
| CCC | (Reserved)                                                                                                                                |                              |                          |                      |                  |
| DDD | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                        |                              | X                        |                      | X                |
| EEE | (Reserved)                                                                                                                                |                              |                          |                      |                  |
| FFF | Flexible Vinyl and Urethane Coating and Printing                                                                                          |                              | X                        |                      | X                |
| GGG | Equipment Leaks of VOC in Petroleum Refineries                                                                                            |                              | X                        |                      | X                |
| HHH | Synthetic Fiber Production Facilities                                                                                                     |                              | X                        |                      | X                |
| III | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes |                              | X                        |                      | X                |
| JJJ | Petroleum Dry Cleaners                                                                                                                    |                              | X                        |                      | X                |
| KKK | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                         |                              | X                        |                      | X                |
| LLL | Onshore Natural Gas Processing: SO2 Emissions                                                                                             |                              |                          |                      | X                |
| MMM | (Reserved)                                                                                                                                |                              |                          |                      |                  |
| NNN | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations          |                              | X                        |                      | X                |
| OOO | Nonmetallic Mineral Processing Plants                                                                                                     |                              | X                        |                      | X                |

**Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD**

|     | Subpart                                                                                                              | Air pollution control agency |                          |                      |                  |
|-----|----------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|----------------------|------------------|
|     |                                                                                                                      | Glenn County APCD            | Great Basin Unified APCD | Imperial County APCD | Kern County APCD |
| PPP | Wool Fiberglass Insulation Manufacturing Plants                                                                      |                              | X                        |                      | X                |
| QQQ | VOC Emissions From Petroleum Refinery Wastewater Systems                                                             |                              | X                        |                      | X                |
| RRR | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes |                              |                          |                      | X                |
| SSS | Magnetic Tape Coating Facilities                                                                                     |                              | X                        |                      | X                |
| TTT | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                   |                              | X                        | X                    |                  |
| UUU | Calciners and Dryers in Mineral Industries                                                                           |                              | X                        |                      | X                |
| VVV | Polymeric Coating of Supporting Substrates Facilities                                                                |                              | X                        |                      | X                |
| WWW | Municipal Solid Waste Landfills                                                                                      |                              |                          |                      | X                |

(iv) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

**Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District**

|    | Subpart                                                                      | Air pollution control agency |                    |                      |                       |
|----|------------------------------------------------------------------------------|------------------------------|--------------------|----------------------|-----------------------|
|    |                                                                              | Lake County AQMD             | Lassen County APCD | Mariposa County AQMD | Mendocino County AQMD |
| A  | General Provisions                                                           | X                            |                    |                      | X                     |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971         | X                            |                    |                      | X                     |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978 | X                            |                    |                      | X                     |
| Db | Industrial-Commercial-Institutional Steam Generating Units                   | X                            |                    |                      |                       |
| Dc | Small Industrial Steam Generating Units                                      | X                            |                    |                      | X                     |
| E  | Incinerators                                                                 | X                            |                    |                      | X                     |

**Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                    |                      |                       |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------|-----------------------|
|    |                                                                                                                                                                            | Lake County AQMD             | Lassen County APCD | Mariposa County AQMD | Mendocino County AQMD |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994                                                                         | X                            |                    |                      | X                     |
| Eb | Municipal Waste Combustors Constructed After September 20, 1994                                                                                                            |                              |                    |                      |                       |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996                                                                     |                              |                    |                      |                       |
| F  | Portland Cement Plants                                                                                                                                                     | X                            |                    |                      | X                     |
| G  | Nitric Acid Plants                                                                                                                                                         | X                            |                    |                      | X                     |
| H  | Sulfuric Acid Plants                                                                                                                                                       | X                            |                    |                      | X                     |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 | X                            |                    |                      | X                     |
| J  | Petroleum Refineries                                                                                                                                                       | X                            |                    |                      | X                     |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X                            |                    |                      | X                     |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     | X                            |                    |                      | X                     |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X                            |                    |                      | X                     |
| L  | Secondary Lead Smelters                                                                                                                                                    | X                            |                    |                      | X                     |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            |                    |                      | X                     |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            |                    |                      | X                     |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            | X                            |                    |                      | X                     |
| O  | Sewage Treatment Plants                                                                                                                                                    | X                            |                    |                      | X                     |
| P  | Primary Copper Smelters                                                                                                                                                    | X                            |                    |                      | X                     |
| Q  | Primary Zinc Smelters                                                                                                                                                      | X                            |                    |                      | X                     |

**Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District**

|     | Subpart                                                                                                       | Air pollution control agency |                    |                      |                       |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------|-----------------------|
|     |                                                                                                               | Lake County AQMD             | Lassen County APCD | Mariposa County AQMD | Mendocino County AQMD |
| R   | Primary Lead Smelters                                                                                         | X                            |                    |                      | X                     |
| S   | Primary Aluminum Reduction Plants                                                                             | X                            |                    |                      | X                     |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                             | X                            |                    |                      | X                     |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                    | X                            |                    |                      | X                     |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    | X                            |                    |                      | X                     |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   | X                            |                    |                      | X                     |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              | X                            |                    |                      | X                     |
| Y   | Coal Preparation Plants                                                                                       | X                            |                    |                      | X                     |
| Z   | Ferroalloy Production Facilities                                                                              | X                            |                    |                      | X                     |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       | X                            |                    |                      | X                     |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 | X                            |                    |                      | X                     |
| BB  | Kraft Pulp Mills                                                                                              | X                            |                    |                      | X                     |
| CC  | Glass Manufacturing Plants                                                                                    | X                            |                    |                      | X                     |
| DD  | Grain Elevators                                                                                               | X                            |                    |                      | X                     |
| EE  | Surface Coating of Metal Furniture                                                                            | X                            |                    |                      | X                     |
| FF  | (Reserved)                                                                                                    |                              |                    |                      |                       |
| GG  | Stationary Gas Turbines                                                                                       | X                            |                    |                      | X                     |
| HH  | Lime Manufacturing Plants                                                                                     | X                            |                    |                      | X                     |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        | X                            |                    |                      | X                     |
| LL  | Metallic Mineral Processing Plants                                                                            | X                            |                    |                      | X                     |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   | X                            |                    |                      | X                     |
| NN  | Phosphate Rock Plants                                                                                         | X                            |                    |                      | X                     |
| PP  | Ammonium Sulfate Manufacture                                                                                  | X                            |                    |                      | X                     |

**Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District**

|     | Subpart                                                                                                                                   | Air pollution control agency |                    |                      |                       |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------|-----------------------|
|     |                                                                                                                                           | Lake County AQMD             | Lassen County APCD | Mariposa County AQMD | Mendocino County AQMD |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                                                   | X                            |                    |                      | X                     |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                                              | X                            |                    |                      | X                     |
| SS  | Industrial Surface Coating: Large Appliances                                                                                              | X                            |                    |                      | X                     |
| TT  | Metal Coil Surface Coating                                                                                                                | X                            |                    |                      | X                     |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                                                        | X                            |                    |                      | X                     |
| VV  | Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry                                                          | X                            |                    |                      | X                     |
| WW  | Beverage Can Surface Coating Industry                                                                                                     | X                            |                    |                      | X                     |
| XX  | Bulk Gasoline Terminals                                                                                                                   |                              |                    |                      |                       |
| AAA | New Residential Wool Heaters                                                                                                              | X                            |                    |                      | X                     |
| BBB | Rubber Tire Manufacturing Industry                                                                                                        | X                            |                    |                      | X                     |
| CCC | (Reserved)                                                                                                                                |                              |                    |                      |                       |
| DDD | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                        | X                            |                    |                      | X                     |
| EEE | (Reserved)                                                                                                                                |                              |                    |                      |                       |
| FFF | Flexible Vinyl and Urethane Coating and Printing                                                                                          | X                            |                    |                      | X                     |
| GGG | Equipment Leaks of VOC in Petroleum Refineries                                                                                            | X                            |                    |                      | X                     |
| HHH | Synthetic Fiber Production Facilities                                                                                                     | X                            |                    |                      | X                     |
| III | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes | X                            |                    |                      | X                     |
| JJJ | Petroleum Dry Cleaners                                                                                                                    | X                            |                    |                      | X                     |
| KKK | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                         | X                            |                    |                      | X                     |
| LLL | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                 | X                            |                    |                      | X                     |
| MMM | (Reserved)                                                                                                                                |                              |                    |                      |                       |

**Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District**

|     | Subpart                                                                                                                          | Air pollution control agency |                    |                      |                       |
|-----|----------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------|-----------------------|
|     |                                                                                                                                  | Lake County AQMD             | Lassen County APCD | Mariposa County AQMD | Mendocino County AQMD |
| NNN | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations | X                            |                    |                      | X                     |
| OOO | Nonmetallic Mineral Processing Plants                                                                                            | X                            |                    |                      | X                     |
| PPP | Wool Fiberglass Insulation Manufacturing Plants                                                                                  | X                            |                    |                      | X                     |
| QQQ | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                         | X                            |                    |                      | X                     |
| RRR | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes             | X                            |                    |                      |                       |
| SSS | Magnetic Tape Coating Facilities                                                                                                 | X                            |                    |                      | X                     |
| TTT | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                               |                              |                    |                      |                       |
| UUU | Calciners and Dryers in Mineral Industries                                                                                       | X                            |                    |                      | X                     |
| VVV | Polymeric Coating of Supporting Substrates Facilities                                                                            | X                            |                    |                      | X                     |
| WWW | Municipal Solid Waste Landfills                                                                                                  | X                            |                    |                      |                       |

(v) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District and North Coast Unified Air Quality Management District are shown in the following table:

**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|    | Subpart                                                                      | Air pollution control agency |                    |                           |                          |
|----|------------------------------------------------------------------------------|------------------------------|--------------------|---------------------------|--------------------------|
|    |                                                                              | Modoc County APCD            | Mojave Desert AQMD | Monterey Bay Unified APCD | North Coast Unified AQMD |
| A  | General Provisions                                                           | X                            | X                  | X                         | X                        |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971         | X                            | X                  | X                         | X                        |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978 | X                            | X                  | X                         | X                        |
| Db | Industrial-Commercial-Institutional Steam Generating Units                   | X                            | X                  | X                         | X                        |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units             |                              | X                  | X                         |                          |

**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                    |                           |                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|---------------------------|--------------------------|
|    |                                                                                                                                                                            | Modoc County APCD            | Mojave Desert AQMD | Monterey Bay Unified APCD | North Coast Unified AQMD |
| E  | Incinerators                                                                                                                                                               | X                            | X                  | X                         | X                        |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994                                                                         |                              | X                  |                           |                          |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                                                                                      |                              | X                  |                           |                          |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996                                                                     |                              | X                  |                           |                          |
| F  | Portland Cement Plants                                                                                                                                                     | X                            | X                  | X                         | X                        |
| G  | Nitric Acid Plants                                                                                                                                                         | X                            | X                  | X                         | X                        |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011                                                                 |                              |                    |                           |                          |
| H  | Sulfuric Acid Plant                                                                                                                                                        | X                            | X                  | X                         | X                        |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 | X                            | X                  | X                         | X                        |
| J  | Petroleum Refineries                                                                                                                                                       | X                            | X                  | X                         | X                        |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |                              | X                  |                           |                          |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X                            | X                  | X                         | X                        |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     | X                            | X                  | X                         | X                        |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X                            | X                  | X                         | X                        |
| L  | Secondary Lead Smelters                                                                                                                                                    | X                            | X                  | X                         | X                        |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            | X                  | X                         | X                        |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            | X                  | X                         | X                        |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            | X                            | X                  | X                         | X                        |
| O  | Sewage Treatment Plants                                                                                                                                                    | X                            | X                  | X                         | X                        |

**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|     | Subpart                                                                                                       | Air pollution control agency |                          |                                    |                                   |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|------------------------------------|-----------------------------------|
|     |                                                                                                               | Modoc<br>County<br>APCD      | Mojave<br>Desert<br>AQMD | Monterey<br>Bay<br>Unified<br>APCD | North<br>Coast<br>Unified<br>AQMD |
| P   | Primary Copper Smelters                                                                                       | X                            | X                        | X                                  | X                                 |
| Q   | Primary Zinc Smelters                                                                                         | X                            | X                        | X                                  | X                                 |
| R   | Primary Lead Smelters                                                                                         | X                            | X                        | X                                  | X                                 |
| S   | Primary Aluminum Reduction Plants                                                                             | X                            | X                        | X                                  | X                                 |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                             | X                            | X                        | X                                  | X                                 |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                    | X                            | X                        | X                                  | X                                 |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    | X                            | X                        | X                                  | X                                 |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   | X                            | X                        | X                                  | X                                 |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              | X                            | X                        | X                                  | X                                 |
| Y   | Coal Preparation and Processing Plants                                                                        | X                            | X                        | X                                  | X                                 |
| Z   | Ferroalloy Production Facilities                                                                              | X                            | X                        | X                                  | X                                 |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       | X                            | X                        | X                                  | X                                 |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 | X                            | X                        | X                                  | X                                 |
| BB  | Kraft Pulp Mills                                                                                              | X                            | X                        | X                                  | X                                 |
| CC  | Glass Manufacturing Plants                                                                                    | X                            | X                        | X                                  | X                                 |
| DD  | Grain Elevators                                                                                               | X                            | X                        | X                                  | X                                 |
| EE  | Surface Coating of Metal Furniture                                                                            | X                            | X                        | X                                  | X                                 |
| FF  | (Reserved)                                                                                                    |                              |                          |                                    |                                   |
| GG  | Stationary Gas Turbines                                                                                       | X                            | X                        | X                                  | X                                 |
| HH  | Lime Manufacturing Plants                                                                                     | X                            | X                        | X                                  | X                                 |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        | X                            | X                        | X                                  | X                                 |
| LL  | Metallic Mineral Processing Plants                                                                            | X                            | X                        | X                                  | X                                 |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   | X                            | X                        | X                                  | X                                 |



**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|      | Subpart                                                                                                                                                                   | Air pollution control agency |                    |                           |                          |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|---------------------------|--------------------------|
|      |                                                                                                                                                                           | Modoc County APCD            | Mojave Desert AQMD | Monterey Bay Unified APCD | North Coast Unified AQMD |
| NN   | Phosphate Rock Plants                                                                                                                                                     | X                            | X                  | X                         | X                        |
| PP   | Ammonium Sulfate Manufacture                                                                                                                                              | X                            | X                  | X                         | X                        |
| QQ   | Graphic Arts Industry: Publication Rotogravure Printing                                                                                                                   | X                            | X                  | X                         | X                        |
| RR   | Pressure Sensitive Tape and Label Surface Coating Operations                                                                                                              | X                            | X                  | X                         | X                        |
| SS   | Industrial Surface Coating: Large Appliances                                                                                                                              | X                            | X                  | X                         | X                        |
| TT   | Metal Coil Surface Coating                                                                                                                                                | X                            | X                  | X                         | X                        |
| UU   | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        | X                            | X                  | X                         | X                        |
| VV   | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                                                          | X                            | X                  | X                         | X                        |
| VVa  | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 |                              | X                  |                           |                          |
| WW   | Beverage Can Surface Coating Industry                                                                                                                                     | X                            | X                  | X                         | X                        |
| XX   | Bulk Gasoline Terminals                                                                                                                                                   |                              |                    |                           |                          |
| AAA  | New Residential Wood Heaters                                                                                                                                              | X                            | X                  | X                         | X                        |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                                                        | X                            | X                  | X                         | X                        |
| CCC  | (Reserved)                                                                                                                                                                |                              |                    |                           |                          |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        | X                            | X                  | X                         |                          |
| EEE  | (Reserved)                                                                                                                                                                |                              |                    |                           |                          |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          | X                            | X                  | X                         | X                        |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                            | X                            | X                  | X                         | X                        |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   |                              | X                  |                           |                          |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                     | X                            | X                  | X                         | X                        |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                 |                              | X                  |                           |                          |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                    | X                            | X                  | X                         | X                        |

**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|      | Subpart                                                                                                                                                                                                | Air pollution control agency |                    |                           |                          |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|---------------------------|--------------------------|
|      |                                                                                                                                                                                                        | Modoc County APCD            | Mojave Desert AQMD | Monterey Bay Unified APCD | North Coast Unified AQMD |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                                                      | X                            | X                  | X                         | X                        |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                                              | X                            | X                  | X                         | X                        |
| MMM  | (Reserved)                                                                                                                                                                                             |                              |                    |                           |                          |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                                                       | X                            | X                  | X                         |                          |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                                                  | X                            | X                  | X                         | X                        |
| PPP  | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                                                        | X                            | X                  | X                         | X                        |
| QQQ  | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                                               | X                            | X                  | X                         | X                        |
| RRR  | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   |                              | X                  |                           |                          |
| SSS  | Magnetic Tape Coating Facilities                                                                                                                                                                       | X                            | X                  | X                         | X                        |
| TTT  | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     | X                            | X                  | X                         | X                        |
| UUU  | Calciners and Dryers in Mineral Industries                                                                                                                                                             |                              | X                  | X                         |                          |
| VVV  | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  |                              | X                  | X                         | X                        |
| WWW  | Municipal Solid Waste Landfills                                                                                                                                                                        |                              | X                  | X                         |                          |
| AAAA | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           |                              | X                  |                           |                          |
| CCCC | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 |                              | X                  |                           |                          |
| EEEE | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    |                              | X                  |                           |                          |
| GGGG | (Reserved)                                                                                                                                                                                             |                              |                    |                           |                          |
| HHHH | (Reserved)                                                                                                                                                                                             |                              |                    |                           |                          |
| IIII | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            |                              | X                  | X                         |                          |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  |                              | X                  | X                         |                          |

**Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD**

|      | Subpart                                                              | Air pollution control agency |                    |                           |                          |
|------|----------------------------------------------------------------------|------------------------------|--------------------|---------------------------|--------------------------|
|      |                                                                      | Modoc County APCD            | Mojave Desert AQMD | Monterey Bay Unified APCD | North Coast Unified AQMD |
| KKKK | Stationary Combustion Turbines                                       |                              | X                  | X                         |                          |
| LLLL | New Sewage Sludge Incineration Units                                 |                              |                    |                           |                          |
| OOOO | Crude Oil and Natural Gas Production, Transmission, and Distribution |                              |                    |                           |                          |

(vi) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

**Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District**

|    | Subpart                                                                                                | Air pollution control agency |                             |                    |                              |
|----|--------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|--------------------|------------------------------|
|    |                                                                                                        | Northern Sierra AQMD         | Northern Sonoma County APCD | Placer County APCD | Sacramento Metropolitan AQMD |
| A  | General Provisions                                                                                     |                              | X                           |                    | X                            |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                   |                              | X                           |                    | X                            |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                           |                              | X                           |                    | X                            |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                             |                              |                             |                    | X                            |
| Dc | Small Industrial Steam Generating Units                                                                |                              |                             |                    | X                            |
| E  | Incinerators                                                                                           |                              | X                           |                    | X                            |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994     |                              |                             |                    | X                            |
| Eb | Municipal Waste Combustors Constructed After September 20, 1994                                        |                              |                             |                    | X                            |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 |                              |                             |                    | X                            |
| F  | Portland Cement Plants                                                                                 |                              | X                           |                    | X                            |
| G  | Nitric Acid Plants                                                                                     |                              | X                           |                    | X                            |

**Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                             |                    |                              |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|--------------------|------------------------------|
|    |                                                                                                                                                                            | Northern Sierra AQMD         | Northern Sonoma County APCD | Placer County APCD | Sacramento Metropolitan AQMD |
| H  | Sulfuric Acid Plants                                                                                                                                                       |                              | X                           |                    | X                            |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 |                              | X                           |                    | X                            |
| J  | Petroleum Refineries                                                                                                                                                       |                              | X                           |                    | X                            |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     |                              | X                           |                    | X                            |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     |                              | X                           |                    | X                            |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 |                              |                             |                    | X                            |
| L  | Secondary Lead Smelters                                                                                                                                                    |                              | X                           |                    | X                            |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               |                              | X                           |                    | X                            |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               |                              | X                           |                    | X                            |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |                              |                             |                    | X                            |
| O  | Sewage Treatment Plants                                                                                                                                                    |                              | X                           |                    | X                            |
| P  | Primary Copper Smelters                                                                                                                                                    |                              | X                           |                    | X                            |
| Q  | Primary Zinc Smelters                                                                                                                                                      |                              | X                           |                    | X                            |
| R  | Primary Lead Smelters                                                                                                                                                      |                              | X                           |                    | X                            |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          |                              | X                           |                    | X                            |
| T  | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          |                              | X                           |                    | X                            |
| U  | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 |                              | X                           |                    | X                            |
| V  | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                 |                              | X                           |                    | X                            |
| W  | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                |                              | X                           |                    | X                            |

**Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District**

|     | Subpart                                                                                                       | Air pollution control agency |                             |                    |                              |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|--------------------|------------------------------|
|     |                                                                                                               | Northern Sierra AQMD         | Northern Sonoma County APCD | Placer County APCD | Sacramento Metropolitan AQMD |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              |                              | X                           |                    | X                            |
| Y   | Coal Preparation Plants                                                                                       |                              | X                           |                    | X                            |
| Z   | Ferroalloy Production Facilities                                                                              |                              | X                           |                    | X                            |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       |                              | X                           |                    | X                            |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 |                              |                             |                    | X                            |
| BB  | Kraft pulp Mills                                                                                              |                              | X                           |                    | X                            |
| CC  | Glass Manufacturing Plants                                                                                    |                              | X                           |                    | X                            |
| DD  | Grain Elevators                                                                                               |                              | X                           |                    | X                            |
| EE  | Surface Coating of Metal Furniture                                                                            |                              |                             |                    | X                            |
| FF  | (Reserved)                                                                                                    |                              |                             |                    |                              |
| GG  | Stationary Gas Turbines                                                                                       |                              | X                           |                    | X                            |
| HH  | Lime Manufacturing Plants                                                                                     |                              | X                           |                    | X                            |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        |                              |                             |                    | X                            |
| LL  | Metallic Mineral Processing Plants                                                                            |                              |                             |                    | X                            |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   |                              | X                           |                    | X                            |
| NN  | Phosphate Rock Plants                                                                                         |                              |                             |                    | X                            |
| PP  | Ammonium Sulfate Manufacture                                                                                  |                              | X                           |                    | X                            |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       |                              |                             |                    | X                            |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  |                              |                             |                    | X                            |
| SS  | Industrial Surface Coating: Large Appliances                                                                  |                              |                             |                    | X                            |
| TT  | Metal Coil Surface Coating                                                                                    |                              |                             |                    | X                            |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                            |                              |                             |                    | X                            |
| VV  | Equipment Leaks of VOC in the Synthetic Organic Chemicals                                                     |                              |                             |                    | X                            |

**Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District**

|     | Subpart                                                                                                                                   | Air pollution control agency |                             |                    |                              |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|--------------------|------------------------------|
|     |                                                                                                                                           | Northern Sierra AQMD         | Northern Sonoma County APCD | Placer County APCD | Sacramento Metropolitan AQMD |
|     | Manufacturing Industry                                                                                                                    |                              |                             |                    |                              |
| WW  | Beverage Can Surface Coating Industry                                                                                                     |                              |                             |                    | X                            |
| XX  | Bulk Gasoline Terminals                                                                                                                   |                              |                             |                    |                              |
| AAA | New Residential Wool Heaters                                                                                                              |                              |                             |                    | X                            |
| BBB | Rubber Tire Manufacturing Industry                                                                                                        |                              |                             |                    | X                            |
| CCC | (Reserved)                                                                                                                                |                              |                             |                    |                              |
| DDD | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                        |                              |                             |                    | X                            |
| EEE | (Reserved)                                                                                                                                |                              |                             |                    |                              |
| FFF | Flexible Vinyl and Urethane Coating and Printing                                                                                          |                              |                             |                    | X                            |
| GGG | Equipment Leaks of VOC in Petroleum Refineries                                                                                            |                              |                             |                    | X                            |
| HHH | Synthetic Fiber Production Facilities                                                                                                     |                              |                             |                    | X                            |
| III | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes |                              |                             |                    | X                            |
| JJJ | Petroleum Dry Cleaners                                                                                                                    |                              |                             |                    | X                            |
| KKK | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                         |                              |                             |                    | X                            |
| LLL | Onshore Natural Gas Processing: SO2 Emissions                                                                                             |                              |                             |                    | X                            |
| MMM | (Reserved)                                                                                                                                |                              |                             |                    |                              |
| NNN | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations          |                              |                             |                    | X                            |
| OOO | Nonmetallic Mineral Processing Plants                                                                                                     |                              |                             |                    | X                            |
| PPP | Wool Fiberglass Insulation Manufacturing Plants                                                                                           |                              |                             |                    | X                            |
| QQQ | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                  |                              |                             |                    | X                            |
| RRR | Volatile Organic Compound Emissions from Synthetic Organic                                                                                |                              |                             |                    | X                            |

**Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District**

|     | Subpart                                                                            | Air pollution control agency |                             |                    |                              |
|-----|------------------------------------------------------------------------------------|------------------------------|-----------------------------|--------------------|------------------------------|
|     |                                                                                    | Northern Sierra AQMD         | Northern Sonoma County APCD | Placer County APCD | Sacramento Metropolitan AQMD |
|     | Chemical Manufacturing Industry (SOCMI) Reactor Processes                          |                              |                             |                    |                              |
| SSS | Magnetic Tape Coating Facilities                                                   |                              |                             |                    | X                            |
| TTT | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines |                              |                             |                    | X                            |
| UUU | Calciners and Dryers in Mineral Industries                                         |                              |                             |                    | X                            |
| VVV | Polymeric Coating of Supporting Substrates Facilities                              |                              |                             |                    | X                            |
| WWW | Municipal Solid Waste Landfills                                                    |                              |                             |                    | X                            |

(vii) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|    | Subpart                                                                                            | Air pollution control agency |                                 |                             |                           |
|----|----------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|    |                                                                                                    | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
| A  | General Provisions                                                                                 | X                            | X                               | X                           | X                         |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                               | X                            | X                               | X                           | X                         |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                       | X                            | X                               | X                           | X                         |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                         | X                            | X                               | X                           | X                         |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                   | X                            | X                               | X                           | X                         |
| E  | Incinerators                                                                                       | X                            | X                               | X                           | X                         |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994 | X                            | X                               | X                           |                           |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                              | X                            | X                               |                             | X                         |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced                 | X                            |                                 |                             | X                         |

**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                                 |                             |                           |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|    |                                                                                                                                                                            | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
|    | After June 20, 1996                                                                                                                                                        |                              |                                 |                             |                           |
| F  | Portland Cement Plants                                                                                                                                                     | X                            | X                               | X                           |                           |
| G  | Nitric Acid Plants                                                                                                                                                         | X                            | X                               | X                           |                           |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011                                                                 |                              |                                 |                             |                           |
| H  | Sulfuric Acid Plant                                                                                                                                                        | X                            | X                               | X                           |                           |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 | X                            | X                               | X                           | X                         |
| J  | Petroleum Refineries                                                                                                                                                       | X                            | X                               | X                           | X                         |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |                              |                                 |                             | X                         |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X                            | X                               | X                           | X                         |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     | X                            | X                               | X                           | X                         |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X                            | X                               | X                           | X                         |
| L  | Secondary Lead Smelters                                                                                                                                                    | X                            | X                               | X                           | X                         |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            | X                               | X                           | X                         |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            | X                               | X                           |                           |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            | X                            | X                               | X                           |                           |
| O  | Sewage Treatment Plants                                                                                                                                                    | X                            | X                               | X                           | X                         |
| P  | Primary Copper Smelters                                                                                                                                                    | X                            | X                               | X                           |                           |
| Q  | Primary Zinc Smelters                                                                                                                                                      | X                            | X                               | X                           |                           |
| R  | Primary Lead Smelters                                                                                                                                                      | X                            | X                               | X                           |                           |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          | X                            | X                               | X                           |                           |



**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|     | Subpart                                                                                                       | Air pollution control agency |                                 |                             |                           |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|     |                                                                                                               | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                             | X                            | X                               | X                           |                           |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                    | X                            | X                               | X                           |                           |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    | X                            | X                               | X                           |                           |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   | X                            | X                               | X                           |                           |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              | X                            | X                               | X                           |                           |
| Y   | Coal Preparation and Processing Plants                                                                        | X                            | X                               | X                           |                           |
| Z   | Ferroalloy Production Facilities                                                                              | X                            | X                               | X                           |                           |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       | X                            | X                               | X                           |                           |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 | X                            | X                               | X                           |                           |
| BB  | Kraft Pulp Mills                                                                                              | X                            | X                               | X                           |                           |
| CC  | Glass Manufacturing Plants                                                                                    | X                            | X                               | X                           | X                         |
| DD  | Grain Elevators                                                                                               | X                            | X                               | X                           | X                         |
| EE  | Surface Coating of Metal Furniture                                                                            | X                            | X                               | X                           |                           |
| FF  | (Reserved)                                                                                                    |                              |                                 |                             |                           |
| GG  | Stationary Gas Turbines                                                                                       | X                            | X                               | X                           | X                         |
| HH  | Lime Manufacturing Plants                                                                                     | X                            | X                               | X                           |                           |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        | X                            | X                               | X                           |                           |
| LL  | Metallic Mineral Processing Plants                                                                            | X                            | X                               | X                           |                           |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   | X                            | X                               | X                           |                           |
| NN  | Phosphate Rock Plants                                                                                         | X                            | X                               | X                           |                           |
| PP  | Ammonium Sulfate Manufacture                                                                                  | X                            | X                               | X                           |                           |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       | X                            | X                               | X                           |                           |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  | X                            | X                               | X                           |                           |

**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|      | Subpart                                                                                                                                                                   | Air pollution control agency |                                 |                             |                           |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|      |                                                                                                                                                                           | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
| SS   | Industrial Surface Coating: Large Appliances                                                                                                                              | X                            | X                               | X                           |                           |
| TT   | Metal Coil Surface Coating                                                                                                                                                | X                            | X                               | X                           |                           |
| UU   | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        | X                            | X                               | X                           |                           |
| VV   | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                                                          | X                            | X                               | X                           |                           |
| VVa  | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 |                              |                                 |                             | X                         |
| WW   | Beverage Can Surface Coating Industry                                                                                                                                     | X                            | X                               | X                           |                           |
| XX   | Bulk Gasoline Terminals                                                                                                                                                   |                              |                                 |                             |                           |
| AAA  | New Residential Wood Heaters                                                                                                                                              | X                            | X                               | X                           | X                         |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                                                        | X                            | X                               | X                           |                           |
| CCC  | (Reserved)                                                                                                                                                                |                              |                                 |                             |                           |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        | X                            | X                               |                             |                           |
| EEE  | (Reserved)                                                                                                                                                                |                              |                                 |                             |                           |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          | X                            | X                               | X                           |                           |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                            | X                            | X                               | X                           |                           |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   |                              |                                 |                             | X                         |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                     | X                            | X                               | X                           |                           |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                 | X                            | X                               |                             |                           |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                    | X                            | X                               | X                           |                           |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                         | X                            | X                               | X                           |                           |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                 | X                            | X                               | X                           |                           |
| MMM  | (Reserved)                                                                                                                                                                |                              |                                 |                             |                           |

**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|      | Subpart                                                                                                                                                                                                | Air pollution control agency |                                 |                             |                           |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|      |                                                                                                                                                                                                        | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                                                       | X                            | X                               |                             |                           |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                                                  | X                            | X                               | X                           | X                         |
| PPP  | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                                                        | X                            | X                               | X                           |                           |
| QQQ  | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                                               | X                            | X                               | X                           |                           |
| RRR  | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   | X                            | X                               | X                           |                           |
| SSS  | Magnetic Tape Coating Facilities                                                                                                                                                                       | X                            | X                               | X                           |                           |
| TTT  | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     | X                            | X                               | X                           |                           |
| UUU  | Calciners and Dryers in Mineral Industries                                                                                                                                                             | X                            | X                               | X                           | X                         |
| VVV  | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  | X                            | X                               | X                           | X                         |
| WWW  | Municipal Solid Waste Landfills                                                                                                                                                                        | X                            | X                               | X                           | X                         |
| AAAA | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           | X                            |                                 |                             | X                         |
| CCCC | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | X                            |                                 |                             | X                         |
| EEEE | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    | X                            |                                 |                             | X                         |
| GGGG | (Reserved)                                                                                                                                                                                             |                              |                                 |                             |                           |
| HHHH | (Reserved)                                                                                                                                                                                             |                              |                                 |                             |                           |
| IIII | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            | X                            |                                 |                             | X                         |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  | X                            |                                 |                             | X                         |
| KKKK | Stationary Combustion Turbines                                                                                                                                                                         | X                            |                                 |                             | X                         |
| LLLL | New Sewage Sludge Incineration Units                                                                                                                                                                   |                              |                                 |                             |                           |

**Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD**

|      | Subpart                                                                               | Air pollution control agency |                                 |                             |                           |
|------|---------------------------------------------------------------------------------------|------------------------------|---------------------------------|-----------------------------|---------------------------|
|      |                                                                                       | San Diego County APCD        | San Joaquin Valley Unified APCD | San Luis Obispo County APCD | Santa Barbara County APCD |
| OOOO | Crude Oil and Natural Gas Production, Transmission, and Distribution                  |                              |                                 |                             |                           |
| QQQQ | Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces | X                            |                                 |                             |                           |
| TTTT | Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units   | X                            |                                 |                             |                           |

(viii) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

**Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD**

|    | Subpart                                                                                                    | Air pollution control agency |                      |                  |                    |
|----|------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------|--------------------|
|    |                                                                                                            | Shasta County AQMD           | Siskiyou County APCD | South Coast AQMD | Tehama County APCD |
| A  | General Provisions                                                                                         | X                            | X                    | X                |                    |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                       | X                            |                      | X                |                    |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                               |                              |                      | X                |                    |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                                 |                              |                      | X                |                    |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                           |                              |                      | X                |                    |
| E  | Incinerators                                                                                               | X                            |                      | X                |                    |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994         |                              |                      | X                |                    |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                      |                              |                      | X                |                    |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996     |                              |                      | X                |                    |
| F  | Portland Cement Plants                                                                                     | X                            |                      | X                |                    |
| G  | Nitric Acid Plants                                                                                         | X                            |                      | X                |                    |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011 |                              |                      |                  |                    |

**Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD**

|    | Subpart                                                                                                                                                                    | Air pollution control agency |                      |                  |                    |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------|--------------------|
|    |                                                                                                                                                                            | Shasta County AQMD           | Siskiyou County APCD | South Coast AQMD | Tehama County APCD |
| H  | Sulfuric Acid Plant                                                                                                                                                        | X                            |                      | X                |                    |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 | X                            |                      | X                |                    |
| J  | Petroleum Refineries                                                                                                                                                       | X                            |                      | X                |                    |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |                              |                      | X                |                    |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X                            |                      | X                |                    |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     |                              |                      | X                |                    |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 |                              |                      | X                |                    |
| L  | Secondary Lead Smelters                                                                                                                                                    | X                            |                      | X                |                    |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            |                      | X                |                    |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            |                      | X                |                    |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |                              |                      | X                |                    |
| O  | Sewage Treatment Plants                                                                                                                                                    | X                            |                      | X                |                    |
| P  | Primary Copper Smelters                                                                                                                                                    | X                            |                      | X                |                    |
| Q  | Primary Zinc Smelters                                                                                                                                                      | X                            |                      | X                |                    |
| R  | Primary Lead Smelters                                                                                                                                                      | X                            |                      | X                |                    |
| S  | Primary Aluminum Reduction Plants                                                                                                                                          | X                            |                      | X                |                    |
| T  | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          | X                            |                      | X                |                    |
| U  | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 | X                            |                      | X                |                    |
| V  | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                 | X                            |                      | X                |                    |
| W  | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                | X                            |                      | X                |                    |

**Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD**

|     | Subpart                                                                                                       | Air pollution control agency |                      |                  |                    |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------|--------------------|
|     |                                                                                                               | Shasta County AQMD           | Siskiyou County APCD | South Coast AQMD | Tehama County APCD |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              | X                            |                      | X                |                    |
| Y   | Coal Preparation and Processing Plants                                                                        | X                            |                      | X                |                    |
| Z   | Ferroalloy Production Facilities                                                                              | X                            |                      | X                |                    |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       | X                            |                      | X                |                    |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 |                              |                      | X                |                    |
| BB  | Kraft Pulp Mills                                                                                              | X                            |                      | X                |                    |
| CC  | Glass Manufacturing Plants                                                                                    |                              |                      | X                |                    |
| DD  | Grain Elevators                                                                                               | X                            |                      | X                |                    |
| EE  | Surface Coating of Metal Furniture                                                                            |                              |                      | X                |                    |
| FF  | (Reserved)                                                                                                    |                              |                      |                  |                    |
| GG  | Stationary Gas Turbines                                                                                       |                              |                      | X                |                    |
| HH  | Lime Manufacturing Plants                                                                                     | X                            |                      | X                |                    |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        |                              |                      | X                |                    |
| LL  | Metallic Mineral Processing Plants                                                                            |                              |                      | X                |                    |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   |                              |                      | X                |                    |
| NN  | Phosphate Rock Plants                                                                                         |                              |                      | X                |                    |
| PP  | Ammonium Sulfate Manufacture                                                                                  |                              |                      | X                |                    |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                       |                              |                      | X                |                    |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                  |                              |                      | X                |                    |
| SS  | Industrial Surface Coating: Large Appliances                                                                  |                              |                      | X                |                    |
| TT  | Metal Coil Surface Coating                                                                                    |                              |                      | X                |                    |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                            |                              |                      | X                |                    |
| VV  | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                              |                              |                      | X                |                    |

**Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD**

|      | Subpart                                                                                                                                                                   | Air pollution control agency |                      |                  |                    |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------|--------------------|
|      |                                                                                                                                                                           | Shasta County AQMD           | Siskiyou County APCD | South Coast AQMD | Tehama County APCD |
| VVa  | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 |                              |                      | X                |                    |
| WW   | Beverage Can Surface Coating Industry                                                                                                                                     |                              |                      | X                |                    |
| XX   | Bulk Gasoline Terminals                                                                                                                                                   |                              |                      |                  |                    |
| AAA  | New Residential Wood Heaters                                                                                                                                              |                              | X                    | X                |                    |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                                                        |                              | X                    | X                |                    |
| CCC  | (Reserved)                                                                                                                                                                |                              |                      |                  |                    |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        |                              |                      | X                |                    |
| EEE  | (Reserved)                                                                                                                                                                |                              |                      |                  |                    |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          |                              |                      | X                |                    |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                            |                              |                      | X                |                    |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   |                              |                      | X                |                    |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                     |                              |                      | X                |                    |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                 |                              |                      | X                |                    |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                    |                              |                      | X                |                    |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                         |                              |                      | X                |                    |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                 |                              |                      | X                |                    |
| MMM  | (Reserved)                                                                                                                                                                |                              |                      |                  |                    |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                          |                              |                      | X                |                    |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                     |                              |                      | X                |                    |
| PPP  | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                           |                              |                      | X                |                    |
| QQQ  | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                  |                              | X                    | X                |                    |

**Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD**

|      | Subpart                                                                                                                                                                                                | Air pollution control agency |                      |                  |                    |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|------------------|--------------------|
|      |                                                                                                                                                                                                        | Shasta County AQMD           | Siskiyou County APCD | South Coast AQMD | Tehama County APCD |
| RRR  | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   |                              |                      | X                |                    |
| SSS  | Magnetic Tape Coating Facilities                                                                                                                                                                       |                              | X                    | X                |                    |
| TTT  | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     |                              | X                    | X                |                    |
| UUU  | Calciners and Dryers in Mineral Industries                                                                                                                                                             |                              |                      | X                |                    |
| VVV  | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  |                              |                      | X                |                    |
| WWW  | Municipal Solid Waste Landfills                                                                                                                                                                        |                              |                      | X                |                    |
| AAAA | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           | X                            | X                    | X                |                    |
| CCCC | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 |                              |                      | X                |                    |
| EEEE | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    |                              |                      | X                |                    |
| GGGG | (Reserved)                                                                                                                                                                                             |                              |                      |                  |                    |
| HHHH | (Reserved)                                                                                                                                                                                             |                              |                      |                  |                    |
| IIII | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            |                              |                      | X                |                    |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  |                              |                      | X                |                    |
| KKKK | Stationary Combustion Turbines                                                                                                                                                                         |                              |                      | X                |                    |
| LLLL | New Sewage Sludge Incineration Units                                                                                                                                                                   |                              |                      |                  |                    |
| OOOO | Crude Oil and Natural Gas Production, Transmission, and Distribution                                                                                                                                   |                              |                      |                  |                    |

(ix) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

**Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD**

|  | Subpart | Air pollution control agency |
|--|---------|------------------------------|
|--|---------|------------------------------|



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|    |                                                                                                                                                                            | Tuolumne<br>County<br>APCD | Ventura<br>County<br>APCD | Yolo-<br>Solano<br>AQMD |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|-------------------------|
| A  | General Provisions                                                                                                                                                         |                            | X                         | X                       |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                                                                                       |                            | X                         | X                       |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                                                                                               |                            | X                         |                         |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                                                                                                 |                            | X                         | X                       |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                                                                                           |                            | X                         |                         |
| E  | Incinerators                                                                                                                                                               |                            | X                         |                         |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994                                                                         |                            | X                         |                         |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                                                                                      |                            |                           |                         |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996                                                                     |                            |                           |                         |
| F  | Portland Cement Plants                                                                                                                                                     |                            | X                         |                         |
| G  | Nitric Acid Plants                                                                                                                                                         |                            | X                         |                         |
| H  | Sulfuric Acid Plant                                                                                                                                                        |                            | X                         |                         |
| I  | Hot Mix Asphalt Facilities                                                                                                                                                 |                            | X                         | X                       |
| J  | Petroleum Refineries                                                                                                                                                       |                            | X                         | X                       |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     |                            | X                         | X                       |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     |                            | X                         |                         |
| Kb | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 |                            | X                         |                         |
| L  | Secondary Lead Smelters                                                                                                                                                    |                            | X                         |                         |
| M  | Secondary Brass and Bronze Production Plants                                                                                                                               |                            | X                         |                         |
| N  | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               |                            | X                         |                         |
| Na | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |                            | X                         |                         |
| O  | Sewage Treatment Plants                                                                                                                                                    |                            | X                         |                         |
| P  | Primary Copper Smelters                                                                                                                                                    |                            | X                         |                         |
| Q  | Primary Zinc Smelters                                                                                                                                                      |                            | X                         |                         |

**Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD**

|     | Subpart                                                                                                       | Air pollution control agency |                     |                  |
|-----|---------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|------------------|
|     |                                                                                                               | Tuolumne County APCD         | Ventura County APCD | Yolo-Solano AQMD |
| R   | Primary Lead Smelters                                                                                         |                              | X                   |                  |
| S   | Primary Aluminum Reduction Plants                                                                             |                              | X                   |                  |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                             |                              | X                   |                  |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                    |                              | X                   |                  |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                    |                              | X                   |                  |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                   |                              | X                   |                  |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                              |                              | X                   |                  |
| Y   | Coal Preparation and Processing Plants                                                                        |                              | X                   |                  |
| Z   | Ferroalloy Production Facilities                                                                              |                              | X                   |                  |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983       |                              | X                   | X                |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983 |                              | X                   |                  |
| BB  | Kraft Pulp Mills                                                                                              |                              | X                   |                  |
| CC  | Glass Manufacturing Plants                                                                                    |                              | X                   |                  |
| DD  | Grain Elevators                                                                                               |                              | X                   |                  |
| EE  | Surface Coating of Metal Furniture                                                                            |                              | X                   |                  |
| FF  | (Reserved)                                                                                                    |                              |                     |                  |
| GG  | Stationary Gas Turbines                                                                                       |                              | X                   |                  |
| HH  | Lime Manufacturing Plants                                                                                     |                              | X                   |                  |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                        |                              | X                   |                  |
| LL  | Metallic Mineral Processing Plants                                                                            |                              | X                   |                  |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                   |                              | X                   |                  |
| NN  | Phosphate Rock Plants                                                                                         |                              | X                   |                  |
| PP  | Ammonium Sulfate Manufacture                                                                                  |                              | X                   |                  |

**Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD**

|      | Subpart                                                                                                                                   | Air pollution control agency |                     |                  |
|------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|------------------|
|      |                                                                                                                                           | Tuolumne County APCD         | Ventura County APCD | Yolo-Solano AQMD |
| QQ   | Graphic Arts Industry: Publication Rotogravure Printing                                                                                   |                              | X                   |                  |
| RR   | Pressure Sensitive Tape and Label Surface Coating Operations                                                                              |                              | X                   |                  |
| SS   | Industrial Surface Coating: Large Appliances                                                                                              |                              | X                   |                  |
| TT   | Metal Coil Surface Coating                                                                                                                |                              | X                   |                  |
| UU   | Asphalt Processing and Asphalt Roofing Manufacture                                                                                        |                              | X                   |                  |
| VV   | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                          |                              | X                   |                  |
| WW   | Beverage Can Surface Coating Industry                                                                                                     |                              | X                   |                  |
| XX   | Bulk Gasoline Terminals                                                                                                                   |                              |                     |                  |
| AAA  | New Residential Wood Heaters                                                                                                              |                              | X                   |                  |
| BBB  | Rubber Tire Manufacturing Industry                                                                                                        |                              | X                   |                  |
| CCC  | (Reserved)                                                                                                                                |                              |                     |                  |
| DDD  | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                        |                              | X                   |                  |
| EEE  | (Reserved)                                                                                                                                |                              |                     |                  |
| FFF  | Flexible Vinyl and Urethane Coating and Printing                                                                                          |                              | X                   |                  |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                            |                              | X                   |                  |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006   |                              |                     |                  |
| HHH  | Synthetic Fiber Production Facilities                                                                                                     |                              | X                   |                  |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes |                              | X                   |                  |
| JJJ  | Petroleum Dry Cleaners                                                                                                                    |                              | X                   |                  |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                         |                              | X                   |                  |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                 |                              | X                   |                  |
| MMM  | (Reserved)                                                                                                                                |                              |                     |                  |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations          |                              | X                   |                  |

**Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD**

|     | Subpart                                                                                                              | Air pollution control agency |                     |                  |
|-----|----------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|------------------|
|     |                                                                                                                      | Tuolumne County APCD         | Ventura County APCD | Yolo-Solano AQMD |
| OOO | Nonmetallic Mineral Processing Plants                                                                                |                              | X                   | X                |
| PPP | Wool Fiberglass Insulation Manufacturing Plants                                                                      |                              | X                   |                  |
| QQQ | VOC Emissions From Petroleum Refinery Wastewater Systems                                                             |                              | X                   |                  |
| RRR | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes |                              | X                   |                  |
| SSS | Magnetic Tape Coating Facilities                                                                                     |                              | X                   |                  |
| TTT | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                   |                              | X                   |                  |
| UUU | Calciners and Dryers in Mineral Industries                                                                           |                              | X                   |                  |
| VVV | Polymeric Coating of Supporting Substrates Facilities                                                                |                              | X                   |                  |
| WWW | Municipal Solid Waste Landfills                                                                                      | X                            | X                   |                  |

(3) *Hawaii*. The following table identifies delegations for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii:

| Delegation Status for New Source Performance Standards for Hawaii |                                                                                                        |        |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------|
|                                                                   | Subpart                                                                                                | Hawaii |
| A                                                                 | General Provisions                                                                                     | X      |
| D                                                                 | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                   | X      |
| Da                                                                | Electric Utility Steam Generating Units Constructed After September 18, 1978                           | X      |
| Db                                                                | Industrial-Commercial-Institutional Steam Generating Units                                             | X      |
| Dc                                                                | Small Industrial Steam Generating Units                                                                | X      |
| E                                                                 | Incinerators                                                                                           | X      |
| Ea                                                                | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994     | X      |
| Eb                                                                | Municipal Waste Combustors Constructed After September 20, 1994                                        | X      |
| Ec                                                                | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 | X      |
| F                                                                 | Portland Cement Plants                                                                                 | X      |
| G                                                                 | Nitric Acid Plants                                                                                     |        |

**Delegation Status for New Source Performance Standards for Hawaii**

|     | Subpart                                                                                                                                                                    | Hawaii |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| H   | Sulfuric Acid Plants                                                                                                                                                       |        |
| I   | Hot Mix Asphalt Facilities                                                                                                                                                 | X      |
| J   | Petroleum Refineries                                                                                                                                                       | X      |
| Ja  | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                  |        |
| K   | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                     | X      |
| Ka  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                     | X      |
| Kb  | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X      |
| L   | Secondary Lead Smelters                                                                                                                                                    |        |
| M   | Secondary Brass and Bronze Production Plants                                                                                                                               |        |
| N   | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               |        |
| Na  | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            |        |
| O   | Sewage Treatment Plants                                                                                                                                                    | X      |
| P   | Primary Copper Smelters                                                                                                                                                    |        |
| Q   | Primary Zinc Smelters                                                                                                                                                      |        |
| R   | Primary Lead Smelters                                                                                                                                                      |        |
| S   | Primary Aluminum Reduction Plants                                                                                                                                          |        |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          |        |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 |        |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                 |        |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                |        |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                                                                                           |        |
| Y   | Coal Preparation Plants                                                                                                                                                    | X      |
| Z   | Ferroalloy Production Facilities                                                                                                                                           |        |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983                                                                    | X      |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983                                                              | X      |

| Delegation Status for New Source Performance Standards for Hawaii |                                                                                                                                                                           |        |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                   | Subpart                                                                                                                                                                   | Hawaii |
| BB                                                                | Kraft pulp Mills                                                                                                                                                          |        |
| CC                                                                | Glass Manufacturing Plants                                                                                                                                                |        |
| DD                                                                | Grain Elevators                                                                                                                                                           |        |
| EE                                                                | Surface Coating of Metal Furniture                                                                                                                                        |        |
| FF                                                                | (Reserved)                                                                                                                                                                |        |
| GG                                                                | Stationary Gas Turbines                                                                                                                                                   | X      |
| HH                                                                | Lime Manufacturing Plants                                                                                                                                                 |        |
| KK                                                                | Lead-Acid Battery Manufacturing Plants                                                                                                                                    |        |
| LL                                                                | Metallic Mineral Processing Plants                                                                                                                                        |        |
| MM                                                                | Automobile and Light Duty Trucks Surface Coating Operations                                                                                                               |        |
| NN                                                                | Phosphate Rock Plants                                                                                                                                                     |        |
| PP                                                                | Ammonium Sulfate Manufacture                                                                                                                                              |        |
| QQ                                                                | Graphic Arts Industry: Publication Rotogravure Printing                                                                                                                   |        |
| RR                                                                | Pressure Sensitive Tape and Label Surface Coating Operations                                                                                                              |        |
| SS                                                                | Industrial Surface Coating: Large Appliances                                                                                                                              |        |
| TT                                                                | Metal Coil Surface Coating                                                                                                                                                |        |
| UU                                                                | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        |        |
| VV                                                                | Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry                                                                                          | X      |
| VVa                                                               | Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 |        |
| WW                                                                | Beverage Can Surface Coating Industry                                                                                                                                     | X      |
| XX                                                                | Bulk Gasoline Terminals                                                                                                                                                   | X      |
| AAA                                                               | New Residential Wool Heaters                                                                                                                                              |        |
| BBB                                                               | Rubber Tire Manufacturing Industry                                                                                                                                        |        |
| CCC                                                               | (Reserved)                                                                                                                                                                |        |
| DDD                                                               | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        |        |
| EEE                                                               | (Reserved)                                                                                                                                                                |        |
| FFF                                                               | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          |        |

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| Delegation Status for New Source Performance Standards for Hawaii |                                                                                                                                                                                                        |        |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                   | Subpart                                                                                                                                                                                                | Hawaii |
| GGG                                                               | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                                                         | X      |
| GGGa                                                              | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                                                |        |
| HHH                                                               | Synthetic Fiber Production Facilities                                                                                                                                                                  |        |
| III                                                               | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                                              |        |
| JJJ                                                               | Petroleum Dry Cleaners                                                                                                                                                                                 | X      |
| KKK                                                               | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                                                      |        |
| LLL                                                               | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                                              |        |
| MMM                                                               | (Reserved)                                                                                                                                                                                             |        |
| NNN                                                               | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                                                       | X      |
| OOO                                                               | Nonmetallic Mineral Processing Plants                                                                                                                                                                  | X      |
| PPP                                                               | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                                                        |        |
| QQQ                                                               | VOC Emissions From Petroleum Refinery Wastewater                                                                                                                                                       | X      |
| RRR                                                               | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   |        |
| SSS                                                               | Magnetic Tape Coating Facilities                                                                                                                                                                       |        |
| TTT                                                               | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     |        |
| UUU                                                               | Calciners and Dryers in Mineral Industries                                                                                                                                                             | X      |
| VVV                                                               | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  | X      |
| WWW                                                               | Municipal Solid Waste Landfills                                                                                                                                                                        | X      |
| AAAA                                                              | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           | X      |
| CCCC                                                              | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | X      |
| EEEE                                                              | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006                    |        |
| GGGG                                                              | (Reserved)                                                                                                                                                                                             |        |
| IIII                                                              | Stationary Compression Ignition Internal Combustion Engines                                                                                                                                            |        |
| JJJJ                                                              | Stationary Spark Ignition Internal Combustion Engines                                                                                                                                                  |        |

**Delegation Status for New Source Performance Standards for Hawaii**

|      | Subpart                        | Hawaii |
|------|--------------------------------|--------|
| KKKK | Stationary Combustion Turbines |        |

(4) *Nevada*. The following table identifies delegations for Nevada:

**Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada**

|    | Subpart                                                                                                                                                | Air pollution control agency |              |               |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|---------------|
|    |                                                                                                                                                        | Nevada DEP                   | Clark County | Washoe County |
| A  | General Provisions                                                                                                                                     | X                            | X            | X             |
| Cf | Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills                                                                           | X                            |              |               |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                                                                   | X                            | X            | X             |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                                                                           | X                            | X            |               |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                                                                             | X                            | X            |               |
| Dc | Small Industrial-Commercial-Institutional Steam Generating Units                                                                                       | X                            | X            |               |
| E  | Incinerators                                                                                                                                           | X                            | X            | X             |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994                                                     | X                            | X            |               |
| Eb | Large Municipal Waste Combustors Constructed After September 20, 1994                                                                                  | X                            | X            |               |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996                                                 | X                            | X            |               |
| F  | Portland Cement Plants                                                                                                                                 | X                            | X            | X             |
| G  | Nitric Acid Plants                                                                                                                                     | X                            | X            |               |
| Ga | Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011                                             | X                            |              |               |
| H  | Sulfuric Acid Plant                                                                                                                                    | X                            | X            |               |
| I  | Hot Mix Asphalt Facilities                                                                                                                             | X                            | X            | X             |
| J  | Petroleum Refineries                                                                                                                                   | X                            | X            |               |
| Ja | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                              | X                            |              |               |
| K  | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 | X                            | X            | X             |
| Ka | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification                                                          | X                            | X            | X             |



**Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada**

|     | Subpart                                                                                                                                                                    | Air pollution control agency |              |               |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|---------------|
|     |                                                                                                                                                                            | Nevada DEP                   | Clark County | Washoe County |
|     | Commenced After May 18, 1978, and Prior to July 23, 1984                                                                                                                   |                              |              |               |
| Kb  | Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | X                            | X            |               |
| L   | Secondary Lead Smelters                                                                                                                                                    | X                            | X            | X             |
| M   | Secondary Brass and Bronze Production Plants                                                                                                                               | X                            | X            |               |
| N   | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973                                                               | X                            | X            |               |
| Na  | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                            | X                            | X            |               |
| O   | Sewage Treatment Plants                                                                                                                                                    | X                            | X            | X             |
| P   | Primary Copper Smelters                                                                                                                                                    | X                            | X            | X             |
| Q   | Primary Zinc Smelters                                                                                                                                                      | X                            | X            | X             |
| R   | Primary Lead Smelters                                                                                                                                                      | X                            | X            | X             |
| S   | Primary Aluminum Reduction Plants                                                                                                                                          | X                            | X            |               |
| T   | Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants                                                                                                          |                              | X            |               |
| U   | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                 |                              | X            |               |
| V   | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                 |                              | X            |               |
| W   | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                |                              | X            |               |
| X   | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                                                                                           |                              | X            |               |
| Y   | Coal Preparation and Processing Plants                                                                                                                                     | X                            | X            | X             |
| Z   | Ferroalloy Production Facilities                                                                                                                                           | X                            | X            |               |
| AA  | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983                                                                    | X                            | X            |               |
| AAa | Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983                                                              | X                            | X            |               |
| BB  | Kraft Pulp Mills                                                                                                                                                           |                              | X            |               |
| CC  | Glass Manufacturing Plants                                                                                                                                                 | X                            | X            |               |

**Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada**

|     | Subpart                                                                                                                                                                   | Air pollution control agency |              |               |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|---------------|
|     |                                                                                                                                                                           | Nevada DEP                   | Clark County | Washoe County |
| DD  | Grain Elevators                                                                                                                                                           | X                            | X            | X             |
| EE  | Surface Coating of Metal Furniture                                                                                                                                        | X                            | X            | X             |
| FF  | (Reserved)                                                                                                                                                                |                              |              |               |
| GG  | Stationary Gas Turbines                                                                                                                                                   | X                            | X            | X             |
| HH  | Lime Manufacturing Plants                                                                                                                                                 | X                            | X            | X             |
| KK  | Lead-Acid Battery Manufacturing Plants                                                                                                                                    | X                            | X            | X             |
| LL  | Metallic Mineral Processing Plants                                                                                                                                        | X                            | X            | X             |
| MM  | Automobile and Light Duty Trucks Surface Coating Operations                                                                                                               | X                            | X            | X             |
| NN  | Phosphate Rock Plants                                                                                                                                                     | X                            | X            | X             |
| PP  | Ammonium Sulfate Manufacture                                                                                                                                              | X                            | X            |               |
| QQ  | Graphic Arts Industry: Publication Rotogravure Printing                                                                                                                   | X                            | X            | X             |
| RR  | Pressure Sensitive Tape and Label Surface Coating Operations                                                                                                              | X                            | X            |               |
| SS  | Industrial Surface Coating: Large Appliances                                                                                                                              | X                            | X            | X             |
| TT  | Metal Coil Surface Coating                                                                                                                                                | X                            | X            | X             |
| UU  | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        | X                            | X            | X             |
| VV  | Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing                                                                                          | X                            | X            | X             |
| VVa | Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006 | X                            | X            |               |
| WW  | Beverage Can Surface Coating Industry                                                                                                                                     | X                            | X            |               |
| XX  | Bulk Gasoline Terminals                                                                                                                                                   | X                            | X            |               |
| AAA | New Residential Wood Heaters                                                                                                                                              |                              | X            |               |
| BBB | Rubber Tire Manufacturing Industry                                                                                                                                        | X                            | X            |               |
| CCC | (Reserved)                                                                                                                                                                |                              |              |               |
| DDD | Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry                                                                                        | X                            | X            |               |
| EEE | (Reserved)                                                                                                                                                                |                              |              |               |
| FFF | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          | X                            | X            |               |

**Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada**

|      | Subpart                                                                                                                                                                                                | Air pollution control agency |              |               |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|---------------|
|      |                                                                                                                                                                                                        | Nevada DEP                   | Clark County | Washoe County |
| GGG  | Equipment Leaks of VOC in Petroleum Refineries                                                                                                                                                         | X                            | X            |               |
| GGGa | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                                                | X                            | X            |               |
| HHH  | Synthetic Fiber Production Facilities                                                                                                                                                                  | X                            | X            |               |
| III  | Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes                                                              | X                            | X            |               |
| JJJ  | Petroleum Dry Cleaners                                                                                                                                                                                 | X                            | X            | X             |
| KKK  | Equipment Leaks of VOC From Onshore Natural Gas Processing Plants                                                                                                                                      | X                            | X            |               |
| LLL  | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                                              | X                            | X            |               |
| MMM  | (Reserved)                                                                                                                                                                                             |                              |              |               |
| NNN  | Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations                                                                       | X                            | X            |               |
| OOO  | Nonmetallic Mineral Processing Plants                                                                                                                                                                  | X                            | X            |               |
| PPP  | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                                                        | X                            | X            |               |
| QQQ  | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                                               | X                            | X            |               |
| RRR  | Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes                                                                                   | X                            | X            |               |
| SSS  | Magnetic Tape Coating Facilities                                                                                                                                                                       | X                            | X            |               |
| TTT  | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines                                                                                                                     | X                            | X            | X             |
| UUU  | Calciners and Dryers in Mineral Industries                                                                                                                                                             | X                            | X            | X             |
| VVV  | Polymeric Coating of Supporting Substrates Facilities                                                                                                                                                  | X                            | X            | X             |
| WWW  | Municipal Solid Waste Landfills                                                                                                                                                                        | X                            | X            | X             |
| XXX  | Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014                                                                                       | X                            |              |               |
| AAAA | Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001                           | X                            | X            | X             |
| CCCC | Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 | X                            | X            | X             |

**Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada**

|      | Subpart                                                                                                                                                                             | Air pollution control agency |              |               |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|---------------|
|      |                                                                                                                                                                                     | Nevada DEP                   | Clark County | Washoe County |
| EEEE | Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006 | X                            | X            | X             |
| GGGG | (Reserved)                                                                                                                                                                          |                              |              |               |
| HHHH | (Reserved)                                                                                                                                                                          |                              |              |               |
| IIII | Stationary Compression Ignition Internal Combustion Engines                                                                                                                         | X                            | X            | X             |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines                                                                                                                               | X                            | X            | X             |
| KKKK | Stationary Combustion Turbines                                                                                                                                                      | X                            | X            | X             |
| LLLL | New Sewage Sludge Incineration Units                                                                                                                                                |                              | X            |               |
| OOOO | Crude Oil and Natural Gas Production, Transmission, and Distribution                                                                                                                | X                            |              |               |

(5) *Guam*. The following table identifies delegations as of June 15, 2001:

**Delegation Status for New Source Performance Standards for Guam**

|    | Subpart                                                                                                | Guam |
|----|--------------------------------------------------------------------------------------------------------|------|
| A  | General Provisions                                                                                     | X    |
| D  | Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971                                   | X    |
| Da | Electric Utility Steam Generating Units Constructed After September 18, 1978                           |      |
| Db | Industrial-Commercial-Institutional Steam Generating Units                                             |      |
| Dc | Small Industrial Steam Generating Units                                                                |      |
| E  | Incinerators                                                                                           |      |
| Ea | Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994     |      |
| Eb | Municipal Waste Combustors Constructed After September 20, 1994                                        |      |
| Ec | Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 |      |
| F  | Portland Cement Plants                                                                                 | X    |
| G  | Nitric Acid Plants                                                                                     |      |
| H  | Sulfuric Acid Plants                                                                                   |      |
| I  | Hot Mix Asphalt Facilities                                                                             | X    |
| J  | Petroleum Refineries                                                                                   | X    |

| Delegation Status for New Source Performance Standards for Guam |                                                                                                                                                        |      |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|                                                                 | Subpart                                                                                                                                                | Guam |
| K                                                               | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 | X    |

(e) The following lists the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(1) *New Mexico*. The New Mexico Environment Department has been delegated all part 60 standards promulgated by the EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters; and subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces, as amended in the Federal Register through January 15, 2017.

(2) *Louisiana*. The Louisiana Department of Environmental Quality has been delegated the following part 60 standards promulgated by EPA, as amended in the Federal Register through July 1, 2021. The (X) symbol is used to indicate each subpart that has been delegated.

| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                                                                                                                            |      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                                                                                                                            | LDEQ |
| A                                                                                        | General Provisions                                                                                                                                                         | X    |
| Cb                                                                                       | Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994                                        | X    |
| Cc                                                                                       | Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills                                                                                               | X    |
| Cd                                                                                       | Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units                                                                                               | X    |
| Ce                                                                                       | Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators                                                                                | X    |
| Cf                                                                                       | Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills                                                                                               | X    |
| D                                                                                        | Fossil Fueled Steam Generators                                                                                                                                             | X    |
| Da                                                                                       | Electric Utility Steam Generating Units                                                                                                                                    | X    |
| Db                                                                                       | Industrial-Commercial-Institutional Steam Generating Units                                                                                                                 | X    |
| Dc                                                                                       | Small Industrial-Commercial-Institutional Steam Generating Units                                                                                                           | X    |
| E                                                                                        | Incinerators                                                                                                                                                               | X    |
| Ea                                                                                       | Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989, and On or Before September 20, 1994                                                | X    |
| Eb                                                                                       | Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996 | X    |
| Ec                                                                                       | Hospital/Medical/Infectious Waste Incinerators                                                                                                                             | X    |

Permit Issued: [month day, year]

Permit Expires: [month day, year]

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| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                                                                                                                                                 |      |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                                                                                                                                                 | LDEQ |
| F                                                                                        | Portland Cement Plants                                                                                                                                                                          | X    |
| G                                                                                        | Nitric Acid Plants                                                                                                                                                                              | X    |
| Ga                                                                                       | Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011                                                                                     | X    |
| H                                                                                        | Sulfuric Acid Plants                                                                                                                                                                            | X    |
| I                                                                                        | Hot Mix Asphalt Facilities                                                                                                                                                                      | X    |
| J                                                                                        | Petroleum Refineries                                                                                                                                                                            | X    |
| Ja                                                                                       | Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007                                                                                       | X    |
| K                                                                                        | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978                                          | X    |
| Ka                                                                                       | Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984                                          | X    |
| Kb                                                                                       | VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023 | X    |
| Kc                                                                                       | VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, October 4, 2023                                                                                 | No   |
| L                                                                                        | Secondary Lead Smelters for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and On or Before December 1, 2022                                                | X    |
| La                                                                                       | Secondary Lead Smelters for Which Construction, Reconstruction, or Modification Commenced After December 1, 2022                                                                                | No   |
| M                                                                                        | Secondary Brass and Bronze Production Plants                                                                                                                                                    | X    |
| N                                                                                        | Primary Emissions from Basic Oxygen Process Furnaces for Which Construction Commenced After June 11, 1973                                                                                       | X    |
| Na                                                                                       | Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983                                                                 | X    |
| O                                                                                        | Sewage Treatment Plants                                                                                                                                                                         | X    |
| P                                                                                        | Primary Copper Smelters                                                                                                                                                                         | X    |
| Q                                                                                        | Primary Zinc Smelters                                                                                                                                                                           | X    |
| R                                                                                        | Primary Lead Smelters                                                                                                                                                                           | X    |

| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                                                                                                                                |      |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                                                                                                                                | LDEQ |
| S                                                                                        | Primary Aluminum Reduction Plants                                                                                                                                              | X    |
| T                                                                                        | Phosphate Fertilizer Industry: Wet Process Phosphoric Plants                                                                                                                   | X    |
| U                                                                                        | Phosphate Fertilizer Industry: Superphosphoric Acid Plants                                                                                                                     | X    |
| V                                                                                        | Phosphate Fertilizer Industry: Diammonium Phosphate Plants                                                                                                                     | X    |
| W                                                                                        | Phosphate Fertilizer Industry: Triple Superphosphate Plants                                                                                                                    | X    |
| X                                                                                        | Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities                                                                                               | X    |
| Y                                                                                        | Coal Preparation and Processing Plants                                                                                                                                         | X    |
| Z                                                                                        | Ferroalloy Production Facilities                                                                                                                                               | X    |
| AA                                                                                       | Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983                                                                       | X    |
| AAa                                                                                      | Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983, and On or Before May 16, 2022                                    | X    |
| AAb                                                                                      | Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels Constructed After May 16, 2022                                                                      | No   |
| BB                                                                                       | Kraft Pulp Mills                                                                                                                                                               | X    |
| BBa                                                                                      | Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013                                                          | X    |
| CC                                                                                       | Glass Manufacturing Plants                                                                                                                                                     | X    |
| DD                                                                                       | Grain Elevators                                                                                                                                                                | X    |
| EE                                                                                       | Surface Coating of Metal Furniture                                                                                                                                             | X    |
| GG                                                                                       | Stationary Gas Turbines                                                                                                                                                        | X    |
| HH                                                                                       | Lime Manufacturing Plants                                                                                                                                                      | X    |
| KK                                                                                       | Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After January 14, 1980, and On or Before February 23, 2022            | X    |
| KKa                                                                                      | Lead-Acid Battery Manufacturing Plants for Which Construction, Reconstruction, or Modification Commenced After February 23, 2022                                               | No   |
| LL                                                                                       | Metallic Mineral Processing Plants                                                                                                                                             | X    |
| MM                                                                                       | Automobile & Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After October 5, 1979, and On or Before May 18, 2022 | X    |

**Delegation Status for Part 60 Standards—State of Louisiana****[Excluding Indian Country]**

| <b>Subpart</b> | <b>Source category</b>                                                                                                                                                    | <b>LDEQ</b> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| MMa            | Automobile & Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After May 18, 2022                              | No          |
| NN             | Phosphate Manufacturing Plants                                                                                                                                            | X           |
| PP             | Ammonium Sulfate Manufacture                                                                                                                                              | X           |
| QQ             | Graphic Arts Industry: Publication Rotogravure Printing                                                                                                                   | X           |
| RR             | Pressure Sensitive Tape and Label Surface Coating Operations                                                                                                              | X           |
| SS             | Industrial Surface Coating: Large Appliances                                                                                                                              | X           |
| TT             | Metal Coil Surface Coating                                                                                                                                                | X           |
| UU             | Asphalt Processing and Asphalt Roofing Manufacture                                                                                                                        | X           |
| VV             | Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006  | X           |
| VVa            | Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, and on or Before April 25, 2023   | X           |
| VVb            | Equipment Leaks of VOC in the SOCM I Industry for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023                                      | No          |
| WW             | Beverage Can Surface Coating Industry                                                                                                                                     | X           |
| XX             | Bulk Gasoline Terminals That Commenced Construction, Modification, or Reconstruction After December 17, 1980, and On or Before June 10, 2022                              | X           |
| XXa            | Bulk Gasoline Terminals That Commenced Construction, Modification, or Reconstruction After June 10, 2022                                                                  | No          |
| AAA            | New Residential Wood Heaters                                                                                                                                              | No          |
| BBB            | Rubber Tire Manufacturing Industry                                                                                                                                        | X           |
| CCC            | <i>[Reserved]</i>                                                                                                                                                         |             |
| DDD            | Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry                                                                                         | X           |
| EEE            | <i>[Reserved]</i>                                                                                                                                                         |             |
| FFF            | Flexible Vinyl and Urethane Coating and Printing                                                                                                                          | X           |
| GGG            | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and On or Before November 7, 2006 | X           |
| GGGa           | Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006                                   | X           |



| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                                                                                                                          |      |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                                                                                                                          | LDEQ |
| HHH                                                                                      | Synthetic Fiber Production                                                                                                                                               | X    |
| III                                                                                      | VOC Emissions from the SOCM I Air Oxidation Unit Processes                                                                                                               | X    |
| IIIa                                                                                     | VOC Emissions from the SOCM I Air Oxidation Unit Processes for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023                        | No   |
| JJJ                                                                                      | Petroleum Dry Cleaners                                                                                                                                                   | X    |
| KKK                                                                                      | VOC Equipment Leaks From Onshore Natural Gas Processing Plants                                                                                                           | X    |
| LLL                                                                                      | Onshore Natural Gas Processing: SO <sub>2</sub> Emissions                                                                                                                | X    |
| MMM                                                                                      | [Reserved]                                                                                                                                                               |      |
| NNN                                                                                      | VOC Emissions from SOCM I Distillation Operations                                                                                                                        | X    |
| NNNa                                                                                     | VOC Emissions from SOCM I Distillation Operations for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023                                 | No   |
| OOO                                                                                      | Nonmetallic Mineral Processing Plants                                                                                                                                    | X    |
| PPP                                                                                      | Wool Fiberglass Insulation Manufacturing Plants                                                                                                                          | X    |
| QQQ                                                                                      | VOC Emissions From Petroleum Refinery Wastewater Systems                                                                                                                 | X    |
| RRR                                                                                      | VOC Emissions from SOCM I Reactor Processes                                                                                                                              | X    |
| RRRa                                                                                     | VOC Emissions from SOCM I Reactor Processes for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023                                       | No   |
| SSS                                                                                      | Magnetic Tape Coating Operations                                                                                                                                         | X    |
| TTT                                                                                      | Industrial Surface Coating: Plastic Parts for Business Machines                                                                                                          | X    |
| TTTa                                                                                     | Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines for Which Construction, Reconstruction, or Modification Commenced After June 21, 2022 | No   |
| UUU                                                                                      | Calciners and Dryers in Mineral Industries                                                                                                                               | X    |
| VVV                                                                                      | Polymeric Coating of Supporting Substrates Facilities                                                                                                                    | X    |
| WWW                                                                                      | Municipal Solid Waste Landfills                                                                                                                                          | X    |
| XXX                                                                                      | Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014                                                         | X    |
| YYY-ZZZ                                                                                  | [Reserved]                                                                                                                                                               |      |
| AAAA                                                                                     | Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or Modification/Reconstruction is Commenced After 6/06/2001)                             | X    |

| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                                                                                                                                  |      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                                                                                                                                  | LDEQ |
| BBBB                                                                                     | Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999                                                     | X    |
| CCCC                                                                                     | Commercial & Industrial Solid Waste Incineration Units (Construction is Commenced After 11/30/1999 or Modification/Reconstruction is Commenced on or After 6/01/2001)            | X    |
| DDDD                                                                                     | Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)                               | X    |
| EEEE                                                                                     | Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)                                           | X    |
| FFFF                                                                                     | Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction On or Before December 9, 2004                                      | X    |
| GGG-HHH                                                                                  | [Reserved]                                                                                                                                                                       |      |
| IIII                                                                                     | Stationary Compression Ignition Internal Combustion Engines                                                                                                                      | X    |
| JJJJ                                                                                     | Stationary Spark Ignition Internal Combustion Engines                                                                                                                            | X    |
| KKKK                                                                                     | Stationary Combustion Turbines (Construction Commenced After 02/18/2005)                                                                                                         | X    |
| LLLL                                                                                     | New Sewage Sludge Incineration Units                                                                                                                                             | X    |
| MMMM                                                                                     | Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units                                                                                           | X    |
| NNNN                                                                                     | [Reserved]                                                                                                                                                                       |      |
| OOOO                                                                                     | Crude Oil and Natural Gas Production, Transmission and Distribution                                                                                                              | X    |
| OOOOa                                                                                    | Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022                 | X    |
| OOOOb                                                                                    | Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After December 6, 2022                                                     | No   |
| OOOOc                                                                                    | Emissions Guidelines for Greenhouse Gas Emissions from Existing Crude Oil and Natural Gas Facilities                                                                             | No   |
| PPPP                                                                                     | [Reserved]                                                                                                                                                                       |      |
| QQQQ                                                                                     | New Residential Hydronic Heaters and Forced-Air Furnaces                                                                                                                         | X    |
| TTTT                                                                                     | Greenhouse Gas Emissions for Electric Generating Units                                                                                                                           | X    |
| TTTTa                                                                                    | Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units | No   |

| Delegation Status for Part 60 Standards—State of Louisiana<br>[Excluding Indian Country] |                                                                |      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------|------|
| Subpart                                                                                  | Source category                                                | LDEQ |
| UUUUa                                                                                    | [Reserved]                                                     |      |
| UUUUb                                                                                    | Greenhouse Gas Emissions for Electric Utility Generating Units | No   |

(3) *Albuquerque-Bernalillo County Air Quality Control Board*. The Albuquerque-Bernalillo County Air Quality Control Board has been delegated all part 60 standards promulgated by the EPA, except subpart AAA of this part and subpart QQQQ of this part as amended through January 23, 2017.

Editorial Note: For Federal Register citations affecting § 60.4, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

#### § 60.5 Determination of construction or modification.

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

#### § 60.6 Review of plans.

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)
  - (1) A separate request shall be submitted for each construction or modification project.
  - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall
  - (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or
  - (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

#### § 60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
  - (1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - (2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in § 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with § 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by § 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by § 60.8 in lieu of Method 9 observation data as allowed by § 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in § 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in § 60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/TRS/H<sub>2</sub>S/CO/Opacity)

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company:

Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period<sup>1</sup>

| Emission data summary <sup>1</sup>                                          |                | CMS performance summary <sup>1</sup>                          |                |
|-----------------------------------------------------------------------------|----------------|---------------------------------------------------------------|----------------|
| 1. Duration of excess emissions in reporting period due to:                 |                | 1. CMS downtime in reporting period due to:                   |                |
| a. Startup/shutdown                                                         |                | a. Monitor equipment malfunctions                             |                |
| b. Control equipment problems                                               |                | b. Non-Monitor equipment malfunctions                         |                |
| c. Process problems                                                         |                | c. Quality assurance calibration                              |                |
| d. Other known causes                                                       |                | d. Other known causes                                         |                |
| e. Unknown causes                                                           |                | e. Unknown causes                                             |                |
| 2. Total duration of excess emission                                        |                | 2. Total CMS Downtime                                         |                |
| 3. Total duration of excess emissions × (100) [Total source operating time] | % <sup>2</sup> | 3. [Total CMS Downtime] × (100) [Total source operating time] | % <sup>2</sup> |

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the

| Emission data summary <sup>1</sup>                                | CMS performance summary <sup>1</sup> |  |
|-------------------------------------------------------------------|--------------------------------------|--|
| excess emission report described in § 60.7(c) shall be submitted. |                                      |  |

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)

(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous

monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

#### **§ 60.8 Performance tests.**

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator

(1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology,

(2) approves the use of an equivalent method,

(3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance,

(4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or

(5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes

(i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and

(ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).



(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an

audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, [www.epa.gov/ttn/emc](http://www.epa.gov/ttn/emc), to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (i) Preparing the sample;
- (ii) Confirming the true concentration of the sample;
- (iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.
- (iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
- (viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;
- (ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

- (i) Checking audit samples to confirm their true value as reported by the AASP;
- (ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at [http://standards.gov/standards\\_\\_gov/a119.cfm](http://standards.gov/standards__gov/a119.cfm). The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

#### **§ 60.9 Availability of information.**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§ 60.5 and 60.6 is governed by §§ 2.201 through 2.213 of this chapter and not by § 2.301 of this chapter.)

#### **§ 60.10 State authority.**

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

#### **§ 60.11 Compliance with standards and maintenance requirements.**

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by § 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)

(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in § 60.8 unless one of the following conditions apply. If no performance test under § 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under § 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in § 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under § 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in § 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by § 60.8 and shall furnish the

Administrator a written report of the monitoring results along with Method 9 and § 60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under § 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under § 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under § 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under § 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under § 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in § 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by § 60.8, the opacity observation results and observer certification required by § 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by § 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with § 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

## § 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

**§ 60.13 Monitoring requirements.**

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under § 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under § 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under § 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under § 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under § 60.8 and as described in § 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under § 60.8 is conducted.
- (2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)
- (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part must check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)

(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in § 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.



(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of § 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under § 60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

- (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
- (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
- (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in § 60.8 of this subpart or other tests performed following the criteria in § 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).
- (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§ 60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

Editorial Note: For Federal Register citations affecting § 60.13, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

#### **§ 60.14 Modification.**

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and § 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)
- (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
- (2) This exemption shall not apply to any new unit that:
- (i) Is designated as a replacement for an existing unit;
- (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
- (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

**§ 60.15 Reconstruction.**

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

- (1) Name and address of the owner or operator.
- (2) The location of the existing facility.
- (3) A brief description of the existing facility and the components which are to be replaced.
- (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
- (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
- (6) The estimated life of the existing facility after the replacements.
- (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
- (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
- (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

#### § 60.16 Priority list.

| Prioritized Major Source Categories |                                                                                                                              |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Priority Number <sup>1</sup>        | Source Category                                                                                                              |
| 1.                                  | Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment |
|                                     | (a) SOCMI unit processes                                                                                                     |
|                                     | (b) Volatile organic liquid (VOL) storage vessels and handling equipment                                                     |

| Prioritized Major Source Categories |                                                             |
|-------------------------------------|-------------------------------------------------------------|
| Priority Number <sup>1</sup>        | Source Category                                             |
|                                     | (c) SOCMF fugitive sources                                  |
|                                     | (d) SOCMF secondary sources                                 |
| 2.                                  | Industrial Surface Coating: Cans                            |
| 3.                                  | Petroleum Refineries: Fugitive Sources                      |
| 4.                                  | Industrial Surface Coating: Paper                           |
| 5.                                  | Dry Cleaning                                                |
|                                     | (a) Perchloroethylene                                       |
|                                     | (b) Petroleum solvent                                       |
| 6.                                  | Graphic Arts                                                |
| 7.                                  | Polymers and Resins: Acrylic Resins                         |
| 8.                                  | Mineral Wool (Deleted)                                      |
| 9.                                  | Stationary Internal Combustion Engines                      |
| 10.                                 | Industrial Surface Coating: Fabric                          |
| 11.                                 | Industrial-Commercial-Institutional Steam Generating Units. |
| 12.                                 | Incineration: Non-Municipal (Deleted)                       |
| 13.                                 | Non-Metallic Mineral Processing                             |
| 14.                                 | Metallic Mineral Processing                                 |
| 15.                                 | Secondary Copper (Deleted)                                  |
| 16.                                 | Phosphate Rock Preparation                                  |
| 17.                                 | Foundries: Steel and Gray Iron                              |
| 18.                                 | Polymers and Resins: Polyethylene                           |
| 19.                                 | Charcoal Production                                         |
| 20.                                 | Synthetic Rubber                                            |
|                                     | (a) Tire manufacture                                        |
|                                     | (b) SBR production                                          |
| 21.                                 | Vegetable Oil                                               |
| 22.                                 | Industrial Surface Coating: Metal Coil                      |

| Prioritized Major Source Categories |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| Priority Number <sup>1</sup>        | Source Category                                                     |
| 23.                                 | Petroleum Transportation and Marketing                              |
| 24.                                 | By-Product Coke Ovens                                               |
| 25.                                 | Synthetic Fibers                                                    |
| 26.                                 | Plywood Manufacture                                                 |
| 27.                                 | Industrial Surface Coating: Automobiles                             |
| 28.                                 | Industrial Surface Coating: Large Appliances                        |
| 29.                                 | Crude Oil and Natural Gas Production                                |
| 30.                                 | Secondary Aluminum                                                  |
| 31.                                 | Potash (Deleted)                                                    |
| 32.                                 | Lightweight Aggregate Industry: Clay, Shale, and Slate <sup>2</sup> |
| 33.                                 | Glass                                                               |
| 34.                                 | Gypsum                                                              |
| 35.                                 | Sodium Carbonate                                                    |
| 36.                                 | Secondary Zinc (Deleted)                                            |
| 37.                                 | Polymers and Resins: Phenolic                                       |
| 38.                                 | Polymers and Resins: Urea-Melamine                                  |
| 39.                                 | Ammonia (Deleted)                                                   |
| 40.                                 | Polymers and Resins: Polystyrene                                    |
| 41.                                 | Polymers and Resins: ABS-SAN Resins                                 |
| 42.                                 | Fiberglass                                                          |
| 43.                                 | Polymers and Resins: Polypropylene                                  |
| 44.                                 | Textile Processing                                                  |
| 45.                                 | Asphalt Processing and Asphalt Roofing Manufacture                  |
| 46.                                 | Brick and Related Clay Products                                     |
| 47.                                 | Ceramic Clay Manufacturing (Deleted)                                |
| 48.                                 | Ammonium Nitrate Fertilizer                                         |
| 49.                                 | Castable Refractories (Deleted)                                     |

| Prioritized Major Source Categories                                                                                 |                                            |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Priority Number <sup>1</sup>                                                                                        | Source Category                            |
| 50.                                                                                                                 | Borax and Boric Acid (Deleted)             |
| 51.                                                                                                                 | Polymers and Resins: Polyester Resins      |
| 52.                                                                                                                 | Ammonium Sulfate                           |
| 53.                                                                                                                 | Starch                                     |
| 54.                                                                                                                 | Perlite                                    |
| 55.                                                                                                                 | Phosphoric Acid: Thermal Process (Deleted) |
| 56.                                                                                                                 | Uranium Refining                           |
| 57.                                                                                                                 | Animal Feed Defluorination (Deleted)       |
| 58.                                                                                                                 | Urea (for fertilizer and polymers)         |
| 59.                                                                                                                 | Detergent (Deleted)                        |
| <i>Other Source Categories</i>                                                                                      |                                            |
| Lead acid battery manufacture <sup>3</sup>                                                                          |                                            |
| Organic solvent cleaning <sup>3</sup>                                                                               |                                            |
| Industrial surface coating: metal furniture <sup>3</sup>                                                            |                                            |
| Stationary gas turbines <sup>4</sup>                                                                                |                                            |
| Municipal solid waste landfills <sup>4</sup>                                                                        |                                            |
| <sup>1</sup> Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.               |                                            |
| <sup>2</sup> Formerly titled "Sintering: Clay and Fly Ash".                                                         |                                            |
| <sup>3</sup> Minor source category, but included on list since an NSPS is being developed for that source category. |                                            |
| <sup>4</sup> Not prioritized, since an NSPS for this major source category has already been promulgated.            |                                            |

## § 60.17 Incorporations by reference.

(a)

(1) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the U.S. Environmental Protection Agency (EPA) must publish a document in the Federal Register and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at the EPA and at the National Archives and Records Administration (NARA). Contact the EPA at: EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC; phone: (202) 566-1744. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).



(2) The IBR material may be obtained from the sources in the following paragraphs of this section or from one or more private resellers listed in this paragraph (a)(2). For material that is no longer commercially available, contact: the EPA (see paragraph (a)(1) of this section).

(i) Accuris Standards Store, 321 Inverness Drive, South Englewood, CO 80112; phone: (800) 332-6077; website: <https://store accuristech.com>.

(ii) American National Standards Institute (ANSI), see paragraph (d) of this section.

(iii) GlobalSpec, 257 Fuller Road, Suite NFE 1100, Albany, NY 12203-3621; phone: (800) 261-2052; website: <https://standards globalspec.com>.

(iv) Nimonik Document Center, 401 Roland Way, Suite 224, Oakland, CA 94624; phone (650) 591-7600; email: [info@document-center.com](mailto:info@document-center.com); website: [www.document-center.com](http://www.document-center.com).

(v) Techstreet, phone: (855) 999-9870; email: [store@techstreet.com](mailto:store@techstreet.com); website: [www.techstreet.com](http://www.techstreet.com).

(b) American Gas Association, available through ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for § 60.107a(d).

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for § 60.107a(d).

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for § 60.107a(d).

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for § 60.107a(d).

(c) American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §§ 60.35e and 60.55c.

(2) [Reserved]

(d) American National Standards Institute (ANSI), 25 West 43rd Street, Fourth Floor, New York, NY 10036-7417; phone: (212) 642-4980; email: [info@ansi.org](mailto:info@ansi.org); website: [www.ansi.org](http://www.ansi.org).

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010); IBR approved for §§ 60.5535(d); 60.5535a(d); 60.5860b(a).

(2) [Reserved]

(e) American Petroleum Institute (API), 200 Massachusetts Ave. NW, Suite 1100, Washington, DC 20001; phone: (202) 682-8000; website: [www.api.org](http://www.api.org).

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved for §§ 60.111(i), 60.111a(f), and 60.116b(e).

(2) API Manual of Petroleum Measurement Standards, Chapter 14—Natural Gas Fluids Measurement, Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, May 2016, IBR approved for § 60.4415(a).

(3) API Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for § 60.107a(d).

(f) American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

(1) "Standard Methods for the Examination of Water and Wastewater," 16th edition, 1985. Method 303F: "Determination of Mercury by the Cold Vapor Technique." Incorporated by reference for appendix A-8 to part 60, Method 29, §§ 9.2.3, 10.3, and 11.1.3.

(2) 2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, IBR approved for § 60.154(b).

(g) American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990; phone: (800) 843-2763; email: *CustomerCare@asme.org*; website: *www.asme.org*.

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(2) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for § 60.107a(d).

(3) ASME/ANSI MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for § 60.107a(d).

(4) ASME/ANSI MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for § 60.107a(d).

(5) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for § 60.107a(d).

(6) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for § 60.107a(d).

(7) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for § 60.107a(d).

(8) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for § 60.107a(d).

(9) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for § 60.107a(d).

(10) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for § 60.107a(d).

(11) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for § 60.107a(d).

(12) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for § 60.107a(d).

(13) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(14) ASME/ANSI PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], Issued August 31, 1981; IBR approved for §§ 60.56c(b); 60.63(f); 60.106(e); 60.104a(d), (h), (i), and (j); 60.105a(b), (d), (f), and (g); 60.106a(a); 60.107a(a), (c), and (d); 60.275(e); 60.275a(e); 60.275b(e); tables 1 and 3 to subpart EEEE; tables 2 and 4 to subpart FFFF; table 2 to subpart JJJJ; §§ 60.285a(f); 60.396(a); 60.614a(b); 60.664a(b); 60.704(b); 60.704a(b); 60.2145(s) and (t); 60.2710(s) and (t); 60.2730(q); 60.4415(a); 60.4900(b); 60.5220(b); tables 1 and 2 to subpart LLLL; tables 2 and 3 to subpart MMMM; §§ 60.5406(c); 60.5406a(c); 60.5406b(c); 60.5407a(g); 60.5407b(g); 60.5413(b); 60.5413a(b) and (d); 60.5413b(d) and (d); 60.5413c(b) and (d).

(15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014); IBR approved for §§ 60.5580; 60.5580a.

(16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997); IBR approved for §§ 60.5580; 60.5580a.

(17) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§ 60.54b(a) and (b), 60.56a, 60.1185(a) and (c), and 60.1675(a) and (c).

(h) ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959; phone: (800) 262-1373; website: [www.astm.org](http://www.astm.org).

(1) ASTM A99-76, Standard Specification for Ferromanganese, IBR approved for § 60.261.

(2) ASTM A99-82 (Reapproved 1987), Standard Specification for Ferromanganese, IBR approved for § 60.261.

(3) ASTM A100-69, Standard Specification for Ferrosilicon, IBR approved for § 60.261.

(4) ASTM A100-74, Standard Specification for Ferrosilicon, IBR approved for § 60.261.

(5) ASTM A100-93, Standard Specification for Ferrosilicon, IBR approved for § 60.261.

(6) ASTM A101-73, Standard Specification for Ferrochromium, IBR approved for § 60.261.

(7) ASTM A101-93, Standard Specification for Ferrochromium, IBR approved for § 60.261.

(8) ASTM A482-76, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.

(9) ASTM A482-93, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.

(10) ASTM A483-64, Standard Specification for Silicomanganese, IBR approved for § 60.261.

(11) ASTM A483-74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for § 60.261.

(12) ASTM A495-76, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.

(13) ASTM A495-94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.

(14) ASTM D86-78, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(15) ASTM D86-82, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(16) ASTM D86-90, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(17) ASTM D86-93, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(18) ASTM D86-95, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(19) ASTM D86-96, Distillation of Petroleum Products, approved April 10, 1996; IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d); 60.633(h); 60.5401(f); 60.5401a(f); 60.5402b(d); 60.5402c(d).

(20) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.

- (21) ASTM D129-78, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (22) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (23) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.335(b).
- (24) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.4415(a).
- (25) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (26) ASTM D240-92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7: Method 19, Section 12.5.2.2.3.
- (27) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for § 60.107a(d).
- (28) ASTM D240-19, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved November 1, 2019; IBR approved for § 60.485b(g).
- (29) ASTM D270-65, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (30) ASTM D270-75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (31) ASTM D323-82, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (32) ASTM D323-94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (33) ASTM D388-77, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (34) ASTM D388-90, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (35) ASTM D388-91, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (36) ASTM D388-95, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (37) ASTM D388-98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (38) ASTM D388-99 (Reapproved 2004)<sup>e1</sup>(ASTM D388-99R04), Standard Classification of Coals by Rank, (Approved June 1, 2004); IBR approved for §§ 60.41; 60.45(f); 60.41Da; 60.41b; 60.41c; 60.251; 60.5580; 60.5580a.
- (39) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

- (40) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (41) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (42) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (43) ASTM D396-98, Standard Specification for Fuel Oils, (Approved April 10, 1998); IBR approved for §§ 60.41b; 60.41c; 60.111(b); 60.111a(b); 60.5580; 60.5580a.
- (44) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (45) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (46) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (47) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, (Approved October 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (48) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (49) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (50) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.4415(a).
- (51) ASTM D1137-53, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).
- (52) ASTM D1137-75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).
- (53) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (54) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (55) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).
- (56) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).
- (57) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

- (58) ASTM D1266-98 (Reapproved 2003)<sup>ε, 1</sup> Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for § 60.4415(a).
- (59) ASTM D1475-60 (Reapproved 1980), Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (60) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, §§ 6.5 and 7.1.
- (61) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, Approved November 1, 2013; IBR approved for § 60.393a(f).
- (62) ASTM D1552-83, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (63) ASTM D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (64) ASTM D1552-01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (65) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for § 60.4415(a).
- (66) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (67) ASTM D1826-94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (68) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for § 60.107a(d).
- (69) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (70) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (71) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (72) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (73) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (74) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (75) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).

- (76) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (77) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, approved January 1, 2010; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (78) ASTM D1945-14 (Reapproved 2019), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, approved December 1, 2019; IBR approved for § 60.485b(g).
- (79) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (80) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (81) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for § 60.107a(d).
- (82) ASTM D2013-72, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (83) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (84) ASTM D2015-77 (Reapproved 1978), Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (85) ASTM D2015-96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (86) ASTM D2016-74, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (87) ASTM D2016-83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (88) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (89) ASTM D2234-96, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (90) ASTM D2234-97b, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (91) ASTM D2234-98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (92) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (93) ASTM D2369-87, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (94) ASTM D2369-90, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.

- (95) ASTM D2369-92, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (96) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (97) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (98) ASTM D2369-10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, (Approved June 1, 2015); IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (99) ASTM D2369-20, Standard Test Method for Volatile Content of Coatings, Approved June 1, 2020; IBR approved for §§ 60.393a(f); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (100) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (101) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (102) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (103) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (104) ASTM D2504-88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (105) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).
- (106) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).
- (107) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for § 60.335(b).
- (108) ASTM D2622-87, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (109) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (110) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (111) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (112) ASTM D2697-22, Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, Approved July 1, 2022; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (113) ASTM D2879-83, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1983; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).



(114) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1996; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).

(115) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1997; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).

(116) ASTM D2879-23, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved December 1, 2019; IBR approved for § 60.485b(e).

(117) ASTM D2880-78, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).

(118) ASTM D2880-96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).

(119) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).

(120) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).

(121) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

(122) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

(123) ASTM D2986-95a, Standard Method for Evaluation of Air, AssaMedia by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

(124) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

(125) ASTM D3173-87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

(126) ASTM D3176-74, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.

(127) ASTM D3176-89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.

(128) ASTM D3177-75, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

(129) ASTM D3177-89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

(130) ASTM D3178-73 (Reapproved 1979), Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).

- (131) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).
- (132) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (133) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (134) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (135) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.4415(a)(1).
- (136) ASTM D3270-73T, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (137) ASTM D3270-80, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (138) ASTM D3270-91, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (139) ASTM D3270-95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (140) ASTM D3286-85, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (141) ASTM D3286-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (142) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (143) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (144) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, approved May 10, 2003; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (145) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (146) ASTM D3792-79, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (147) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (148) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (149) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (150) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.

- (151) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (152) ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (153) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (154) ASTM D4084-82, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).
- (155) ASTM D4084-94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).
- (156) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§ 60.4360 and 60.4415(a).
- (157) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (158) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (159) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (160) ASTM D4239-94, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (161) ASTM D4239-97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (162) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.335(b).
- (163) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (164) ASTM D4442-84, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (165) ASTM D4442-92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (166) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (167) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.5.
- (168) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§ 60.335(b) and 60.4415(a).

- (169) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, (Approved June 1, 2006), IBR approved for § 60.107a(e).
- (170) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§ 60.49b(e) and 60.335(b).
- (171) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(d), 60.664(e), and 60.704(d).
- (172) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for § 60.107a(d).
- (173) ASTM D4809-18, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), approved July 1, 2018; IBR approved for § 60.485b(g).
- (174) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§ 60.4360 and 60.4415(a).
- (175) ASTM D4840-99(2018)e1 Standard Guide for Sample Chain-of-Custody Procedures, approved August 2018; IBR approved for Appendix A-7: Method 23.
- (176) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, approved June 1, 2006; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (177) ASTM D5066-91, Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints—Weight Basis, Approved June 1, 2017; IBR approved for § 60.393a(h).
- (178) ASTM D5087-02 (Reapproved 2021), Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved February 1, 2021; IBR approved for § 60.397a(e); appendix A to subpart MMA.
- (179) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for § 60.4415(a).
- (180) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A-7 to part 60: Method 24, Section 6.6.
- (181) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.335(b).
- (182) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).
- (183) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§ 60.334(h) and 60.4360.
- (184) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§ 60.107a(e) and 60.5413(d).
- (185) ASTM D5623-19, Standard Test Method for Sulfur Compounds in Light Petroleum Liquids by Gas Chromatography and Sulfur Selective Detection, (Approved July 1, 2019); IBR approved for § 60.4415(a).

- (186) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for § 60.335(b).
- (187) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §§ 60.45(f) and 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (188) ASTM D5865-10, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved January 1, 2010), IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, section 12.5.2.1.3.
- (189) ASTM D5965-02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, Approved June 1, 2013; IBR approved for § 60.393a(f).
- (190) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, Approved December 1, 2016; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (191) ASTM D6216-20, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved September 1, 2020; IBR approved for appendix B to part 60.
- (192) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for § 60.334(h).
- (193) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§ 60.4360 and 60.4415.
- (194) ASTM D6266-00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released From Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved July 1, 2017; IBR approved for § 60.397a(e).
- (195) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, (Approved October 1, 2003), IBR approved for § 60.73a(b), table 7 to subpart IIII, table 2 to subpart JJJJ, and § 60.4245(d).
- (196) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved February 1, 2012; IBR approved for § 60.5413c(b).
- (197) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for § 60.335(b)(9).
- (198) ASTM D6377-20, Standard Test Method for Determination of Vapor Pressure of Crude Oil: VPCR<sub>x</sub> (Expansion Method), (Approved June 1, 2020); IBR approved for § 60.113c.
- (199) ASTM-D6378-22, Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method), (Approved July 1, 2022); IBR approved for § 60.113c.
- (200) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for § 60.107a(d) and table 2 to subpart JJJJ.
- (201) ASTM D6420-18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 60.485(g); 60.485a(g); 60.485b(g); 60.611a; 60.614(b) and (e); 60.614a(b) and (e), 60.664(b) and (e); 60.664a(b) and (f); 60.700(c); 60.704(b) (d), and (h); 60.705(l); 60.704a(b) and (f).

(202) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 60.335(a).

(203) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 2 to subpart JJJ, §§ 60.5413(b) and (d), and 60.5413a(b).

(204) ASTM D6522-11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved December 1, 2011), IBR approved for § 60.37f(a), 60.766(a).

(205) ASTM D6522-20, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, approved June 1, 2020; IBR approved for §§ 60.5413b(b); 60.5413c(b).

(206) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.335(b).

(207) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).

(208) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.

(209) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for § 60.56c(b) and appendix B to part 60: Performance Specification 12A, Section 8.6.2.

(210) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008; IBR approved for § 60.56c(b).

(211) ASTM D6784-16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved March 1, 2016; IBR approved for appendix B to part 60.

(212) ASTM D6911-15 Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis, approved January 15, 2015; IBR approved for Appendix A-7: Method 23; Appendix A-8: Method 30B.

(213) ASTM D7039-15a, Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Boideisel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry, (Approved July 1, 2015); IBR approved for § 60.4415(a).

(214) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.

(215) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 60.123(c)(6); 60.123(c)(6)(i); 60.123(c)(6)(ii); 60.123(c)(6)(v); 60.123a(c)(6)(ii); 60.123a(c)(6)(ii)(A); 60.123a(c)(6)(ii)(B); 60.123a(c)(6)(ii)(E); 60.271(k);

60.272(a) and (b); 60.273(c) and (d); 60.274(h); 60.275(e); 60.276(c); 60.271a; 60.272a(a) and (b); 60.273a(c) and (d); 60.274a(h); 60.275a(e); 60.276a(f); 60.271b; 60.272b(a) and (b); 60.273b(c) and (d); 60.274b(h); 60.275b(e); 60.276b(f); 60.374a(d).

(216) ASTM E168-67, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(217) ASTM E168-77, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(218) ASTM E168-92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400, 60.5400a(f).

(219) ASTM E168-16 (Reapproved 2023), Standard Practices for General Techniques of Infrared Quantitative Analysis, approved January 1, 2023; IBR approved for § 60.485b(d).

(220) ASTM E169-63, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f) .

(221) ASTM E169-77, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), and 60.593a(b), 60.632(f).

(222) ASTM E169-93, General Techniques of Ultraviolet Quantitative Analysis, (Approved May 15, 1993), IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), and 60.5400a(f).

(223) ASTM E169-16 (Reapproved 2022), Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved November 1, 2022; IBR approved for § 60.485b(d).

(224) ASTM E260-73, General Gas Chromatography Procedures, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(225) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(226) ASTM E260-96, General Gas Chromatography Procedures, approved April 10, 1996; IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), 60.5400a(f), 60.5406(b), 60.5406a(b)(3), 60.5400b(a)(2), 60.5401b(a)(2), 60.5406b(b)(3), 60.5400c(a), and 60.5401c(a).

(227) ASTM E260-96 (Reapproved 2019), Standard Practice for Packed Column Gas Chromatography, approved September 1, 2029; IBR approved for § 60.485b(d).

(228) ASTM E617-13, Standard Specification for Laboratory Weights and Precision Mass Standards, approved May 1, 2013, IBR approved for appendix A-3: Methods 4, 5, 5H, 5I, and appendix A-8: Method 29.

(229) ASTM E871-82 (Reapproved 2013), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved August 15, 2013), IBR approved for appendix A-8: method 28R.

(230) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for § 60.73a(c).

(231) ASTM E2515-11, Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel, (Approved November 1, 2011), IBR approved for § 60.534 and § 60.5476.

(232) ASTM E2618-13 Standard Test Method for Measurement of Particulate Matter Emissions and Heating Efficiency of Outdoor Solid Fuel-Fired Hydronic Heating Appliances, (Approved September 1, 2013), IBR approved for § 60.5476.

(233) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for § 60.534.

(234) ASTM E2780-10, Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters, (Approved October 1, 2010), IBR approved for appendix A: method 28R.

(235) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for § 60.107a(d).

(i) Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209; phone: (301) 927-7077; website: <https://www.aoac.org/>.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), 11th edition, 1970, pp. 11-12, IBR approved for §§ 60.204(b), 60.214(b), 60.224(b), and 60.234(b).

(2) [Reserved]

(j) CSA Group (CSA) (formerly Canadian Standards Association), 178 Rexdale Boulevard, Toronto, Ontario, Canada; phone: (800) 463-6727; website: <https://shop.csa.ca>.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for §§ 60.534; 60.5476.

(2) [Reserved]

(k) U.S. Environmental Protection Agency (EPA), 1200 Pennsylvania Avenue NW, Washington, DC 20460; phone: (202) 272-0167; website: [www.epa.gov/aboutepa/forms/contact-epa](http://www.epa.gov/aboutepa/forms/contact-epa).

(1) EPA-453/R-08-002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations, September 2008, Office of Air Quality Planning and Standards (OAQPS); IBR approved for §§ 60.393a(e) and (h); 60.395a(k); 60.397a(e); appendix A to subpart MMA.

(2) EPA-454/B-08-002, Quality Assurance Handbook for Air Pollution Measurement Systems; Volume IV: Meteorological Measurements, Version 2.0 (Final), March 2008; IBR approved for appendix K to this part.

(3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997; IBR approved for §§ 60.124(f); 60.124a(f); 60.273(e); 60.273a(e); 60.273b(e); 60.373a(b); 60.2145(r); 60.2710(r); 60.2944(c), 60.3043(c), 60.4880(b); 60.5200(b). (Available from: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.pdf>).

(4) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012; IBR approved for §§ 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).

(5) In EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (Available from: [www.epa.gov/hw-sw846/sw-846-compendium](http://www.epa.gov/hw-sw846/sw-846-compendium)):

(i) SW-846-6010D, Inductively Coupled Plasma-Optical Emission Spectrometry, Revision 5, July 2018; IBR approved for appendix A-5 to this part.

(ii) SW-846-6020B, Inductively Coupled Plasma-Mass Spectrometry, Revision 2, July 2014; IBR approved for appendix A-5 to this part.

(l) European Standards (EN), European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium; phone: + 32 2 550 08 11; website: <https://www.en-standard.eu>.



(1) DIN EN 303-5:2012E (EN 303-5), Heating boilers—Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW—Terminology, requirements, testing and marking, (October 2012), IBR approved for § 60.5476.

(2) [Reserved]

(m) GPA Midstream Association, 6060 American Plaza, Suite 700, Tulsa, OK 74135; phone: (918) 493-3872; website: [www.gpamidstream.org](http://www.gpamidstream.org).

(1) GPA Midstream Standard 2140-17 (GPA 2140-17), Liquefied Petroleum Gas Specifications and Test Methods, (Revised 2017), IBR approved for § 60.4415(a).

(2) GPA Midstream Standard 2166-17 (GPA 2166-17), Obtaining Natural Gas Samples for Analysis by Gas Chromatography, (Reaffirmed 2017), IBR approved for § 60.4415(a).

(3) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for § 60.107a(d).

(4) GPA Standard 2174-14 (GPA 2174-14), Obtaining Liquid Hydrocarbon Samples for Analysis by Gas Chromatography, (Revised 2014), IBR approved for § 60.4415(a).

(5) GPA Standard 2261-19 (GPA 2261-19), Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, (Revised 2019), IBR approved for § 60.4415(a).

(6) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§ 60.105(b), 60.107a(b), 60.334(h), 60.4360, and 60.4415(a).

(n) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland; phone: + 41 22 749 01 11; website: [www.iso.org](http://www.iso.org).

(1) ISO 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, IBR approved for § 60.4241(b).

(2) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for §§ 60.5580; 60.5580a.

(3) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, IBR approved for § 60.107a(d).

(4) ISO 10715:1997(E), Natural gas—Sampling guidelines, (First Edition, June 1, 1997), IBR approved for § 60.4415(a).

(o) National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for § 60.31e.

(2) [Reserved]

(p) North American Electric Reliability Corporation, 1325 G Street NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§ 60.4211(f) and 60.4243(d). Also available online: [http://www.nerc.com/files/EOP-002-3\\_\\_1.pdf](http://www.nerc.com/files/EOP-002-3__1.pdf).

(2) [Reserved]

(q) Pacific Lumber Inspection Bureau (formerly West Coast Lumber Inspection Bureau), 1010 South 336th Street #210, Federal Way, WA 98003; phone: (253) 835.3344; website: [www.plib.org](http://www.plib.org).

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21, 90 and 91, September 3, 1970, revised 1984, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(r) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092; phone (800) 332-8686; website: [www.tappi.org](http://www.tappi.org).

(1) TAPPI Method T 624 cm-11, (Copyright 2011), IBR approved, for §§ 60.285(d) and 60.285a(d).

(2) [Reserved]

(s) Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(t) Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved for § 60.683(b).

(2) [Reserved]

Editorial Note: For Federal Register citations affecting § 60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

#### **§ 60.18 General control device and work practice requirements.**

(a) *Introduction.*

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)

(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)

(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{\max}$ , as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$  = Maximum permitted velocity, m/sec.

$K_1$  = Constant, 6.0 volume-percent hydrogen.

$K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen.

$X_{H_2}$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{\max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{\max}$ , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

- (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \frac{\text{Constant}}{1.740 \times 10^{-7}} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for  $\left( \frac{\text{g mole}}{\text{scm}} \right)$  is 20°C;

$C_i$  = Concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in § 60.17); and

$H_i$  = Net heat of combustion of sample component  $i$ , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity,  $V_{\max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10} (V_{\max}) = (H_T + 28.8)/31.7$$

$V_{\max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity,  $V_{\max}$ , for air-assisted flares shall be determined by the following equation.

$$V_{\max} = 8.706 + 0.7084 (H_T)$$

$V_{\max}$  = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

(i) Skip period leak detection and repair;

(ii) Quality improvement plans; or

(iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

$E_{dic}$  = Mass flow rate for the daily instrument check, grams per hour

$x_i$  = Mass fraction of detectable chemical(s)  $i$  seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level,  $E_{sds}$ .

$E_{sds}$  = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

$k$  = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

- (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
  - (ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
  - (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.
  - (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.
  - (v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.
  - (vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.
  - (vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.
- (5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to *CCG-AWP@EPA.GOV*.

**§ 60.19 General notification and reporting requirements.**

- (a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.



(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)

(1)

(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

**Table 1 to Subpart A of Part 60—Detection Sensitivity Levels (grams per hour)**

| Monitoring frequency per subpart <sup>a</sup> | Detection sensitivity level |
|-----------------------------------------------|-----------------------------|
| Bi-Monthly                                    | 60                          |
| Semi-Quarterly                                | 85                          |

| Monitoring frequency per subpart <sup>a</sup>                                                                                                                                                                                                                                                                                                                       | Detection sensitivity level |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Monthly                                                                                                                                                                                                                                                                                                                                                             | 100                         |
| <sup>a</sup> When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month. |                             |



Month/Year \_\_\_\_\_/\_\_\_\_\_

## Daily Road Inspections

**Purpose:** To identify and eliminate visible silt accumulations from paved haul roads:

- The permittee shall inspect all paved haul roads daily for visible silt accumulation.
- The permittee shall sweep/clean all paved haul roads monthly or when silt has accumulated to a visible level on the road, whichever occurs first.
- NPDES/SDS Permit #MN0064017 – The permittee shall remove tracked material from the road surface and return it to the facility within one day of discovery so that the materials drain to the sedimentation basis at the facility (only includes roads owned by the facility).

**Definition:** Accumulations – material collected; mass; collecting together; amassing  
Silt – Any soil particles less than 200 mesh (75 microns - powder). Includes DDGS.

| Day of Month | Visible material (DDGS or silt) on road? |     |    | Inspection initials | If material is present, was the affected area then swept? (required) |     |    |     | If there is tracked material remaining on the facility roads which will not drain to the pond, was it swept? (required) |     |    |     | Sweeper initials |
|--------------|------------------------------------------|-----|----|---------------------|----------------------------------------------------------------------|-----|----|-----|-------------------------------------------------------------------------------------------------------------------------|-----|----|-----|------------------|
| 1            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 2            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 3            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 4            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 5            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 6            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 7            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 8            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 9            |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 10           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 11           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 12           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 13           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 14           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 15           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 16           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 17           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 18           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 19           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 20           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 21           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 22           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 23           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 24           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 25           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |
| 26           |                                          | Yes | No |                     |                                                                      | Yes | No | N/A |                                                                                                                         | Yes | No | N/A |                  |

Permit Issued: [month day, year]  
Permit Expires: [month day, year]

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|    |  |     |  |    |  |  |     |  |    |  |     |  |     |  |    |  |     |  |
|----|--|-----|--|----|--|--|-----|--|----|--|-----|--|-----|--|----|--|-----|--|
| 27 |  | Yes |  | No |  |  | Yes |  | No |  | N/A |  | Yes |  | No |  | N/A |  |
| 28 |  | Yes |  | No |  |  | Yes |  | No |  | N/A |  | Yes |  | No |  | N/A |  |
| 29 |  | Yes |  | No |  |  | Yes |  | No |  | N/A |  | Yes |  | No |  | N/A |  |
| 30 |  | Yes |  | No |  |  | Yes |  | No |  | N/A |  | Yes |  | No |  | N/A |  |
| 31 |  | Yes |  | No |  |  | Yes |  | No |  | N/A |  | Yes |  | No |  | N/A |  |

## **Appendix D. 40 CFR Part 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

### **§ 60.4200 Am I subject to this subpart?**

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

- (i) 2007 or later, for engines that are not fire pump engines;
- (ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

- (i) Manufactured after April 1, 2006, and are not fire pump engines, or
- (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C, except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

### **Emission Standards for Manufacturers**

#### **§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000

horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR part 1039, appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated power:

- (1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;
- (2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
- (3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

- (1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
- (2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power if the engines will be used solely in either or both of the following locations:

- (1) Remote areas of Alaska; and
- (2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECs) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR part 1039, appendix I, while the AEC is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AEC is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

**§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The Tier 2 emission standards for new nonroad CI engines for the appropriate rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 for model year 2007 engines; and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the Tier 2 emission standards as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI ICE identified in paragraphs (a) and (c) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power if the engines will be used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section. Engines that would be subject to the Tier 4 standards in 40 CFR part 1042 that are used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section may instead continue to be certified to the appropriate Tier 3 standards in 40 CFR part 1042.

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

#### **§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the certified emissions life of the engines.

#### **Emission Standards for Owners and Operators**

#### **§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the Tier 1 emission standards in 40 CFR part 1042, appendix I.



(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of  $\text{NO}_x$  in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $9.0 \cdot n^{-0.20}$  g/KW-hr ( $6.7 \cdot n^{-0.20}$  g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in § 60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

(f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR part 1039, appendix I, while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

- (a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the Tier 1 emission standards in 40 CFR part 1042, appendix I.
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.
- (d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.
- (1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:
- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
  - (ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
  - (iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.
- (2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:
- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
  - (ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
  - (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.
- (3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).
- (e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in § 60.4212.
- (f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

**Fuel Requirements for Owners and Operators**

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

- (a) [Reserved]
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- (c) [Reserved]
- (d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder must use diesel fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).
- (e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

**Other Requirements for Owners and Operators**

**§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?**

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.
- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.
- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.
- (f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.
- (g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.
- (h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

**§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

**Compliance Requirements**

**§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §§ 60.4201(a) through (c) and 60.4202(a), (b), and (d) using the certification procedures required in 40 CFR part 1039, subpart C, and must test their engines as specified in 40 CFR part 1039. For the purposes of this subpart, engines certified to the standards in Table 1 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I. For the purposes of this subpart, engines certified to the standards in Table 4 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §§ 60.4201(d) and (e) and 60.4202(e) and (f) using the certification procedures required in 40 CFR part 1042, subpart C, and must test their engines as specified in 40 CFR part 1042.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135 and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking, and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the

emission standards for emergency engines in § 60.4202 but does not meet all the emission standards for non-emergency engines in § 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of § 60.4201 or § 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must document that the engine complies with the Tier 1 standard in 40 CFR part 1039, appendix I, when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

(k) Manufacturers of any size may certify their emergency stationary CI internal combustion engines under this section using assigned deterioration factors established by EPA, consistent with 40 CFR 1039.240 and 1042.240.

**§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR part 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(a) or § 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) [reserved]

(iii) [reserved]

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.



(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

## Testing Requirements for Owners and Operators

**§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or with Tier 2 emission standards as described in 40 CFR part 1042, appendix I, may follow the testing procedures specified in § 60.4213, as appropriate.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, appendix I, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR part 1039 or 1042, as applicable.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

**§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

$C_i$  = concentration of  $\text{NO}_x$  or PM at the control device inlet,

$C_o$  = concentration of  $\text{NO}_x$  or PM at the control device outlet, and

R = percent reduction of  $\text{NO}_x$  or PM emissions.

(2) You must normalize the  $\text{NO}_x$  or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen ( $\text{O}_2$ ) using Equation 3 of this section, or an equivalent percent carbon dioxide ( $\text{CO}_2$ ) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{ O}_2} \quad (\text{Eq. 3})$$

Where:

$C_{\text{adj}}$  = Calculated  $\text{NO}_x$  or PM concentration adjusted to 15 percent  $\text{O}_2$ .

$C_d$  = Measured concentration of  $\text{NO}_x$  or PM, uncorrected.

5.9 = 20.9 percent  $\text{O}_2$ –15 percent  $\text{O}_2$ , the defined  $\text{O}_2$  correction value, percent.

$\% \text{O}_2$  = Measured  $\text{O}_2$  concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent  $\text{O}_2$  and  $\text{CO}_2$  concentration is measured in lieu of  $\text{O}_2$  concentration measurement, a  $\text{CO}_2$  correction factor is needed. Calculate the  $\text{CO}_2$  correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

$F_o$  = Fuel factor based on the ratio of  $\text{O}_2$  volume to the ultimate  $\text{CO}_2$  volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is  $\text{O}_2$ , percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3/\text{J}$  ( $\text{dscf}/10^6 \text{ Btu}$ ).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

$X_{CO_2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub>–15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

$C_{adj}$  = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

(e) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_d$  = Measured NO<sub>x</sub> concentration in ppm.

$1.912 \times 10^{-3}$  = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

## Notification, Reports, and Records for Owners and Operators

### § 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) [reserved]
- (vi) [reserved]
- (vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

(f) Beginning on February 26, 2025, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test required under this section following the procedures specified in paragraphs (f)(1) and (2) of this section.

(1) *Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test.* Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), according to paragraph (g) of this section. The data must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) *Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.* The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI according to paragraph (g) of this section.

(g) If you are required to submit notifications or reports following the procedure specified in this paragraph (g), you must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (g)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be

asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (g).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov), and as described in paragraph (g) of this section, should include clear CBI markings. ERT files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Stationary Compression Ignition Internal Combustion Engine Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov) to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711. ERT files should be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should be sent to the attention of the Stationary Compression Ignition Internal Combustion Engine Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(h) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (h)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(i) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (i)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

(j) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

## Special Requirements

### § 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§ 60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:



(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

**§ 60.4216 What requirements must I meet for engines used in Alaska?**

- (a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.
- (b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the Tier 2 or Tier 3 emission standards described in 40 CFR part 1042 for the same model year, displacement, and maximum engine power, as appropriate, rather than the otherwise applicable requirements of 40 CFR part 1039, as indicated in §§ 60.4201(f) and 60.4202(g).
- (c) Manufacturers, owners, and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§ 60.4202 and 60.4205, and not those for non-emergency engines in §§ 60.4201 and 60.4204, except that for 2014 model year and later nonemergency CI ICE, the owner or operator of any such engine must have that engine certified as meeting at least the Tier 3 PM standards identified in appendix I of 40 CFR part 1039 or in 40 CFR 1042.101.
- (d) The provisions of § 60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.
- (e) The provisions of § 60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.
- (f) The provisions of this section and § 60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

**§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?**

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the

manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4204 or § 60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

## General Provisions

### § 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

## Definitions

### § 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

*Alaska Railbelt Grid* means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

*Certified emissions life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 1042.101(e).

*Combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Date of manufacture* means one of the following things:

- (1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.
- (2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.
- (3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

*Diesel particulate filter* means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

*Emergency stationary internal combustion engine* means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4211(f)(3)(i).

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*Fire pump engine* means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

*Installed* means the engine is placed and secured at the location where it is intended to be operated.

*Manufacturer* has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1039.801.

*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Reciprocating internal combustion engine* means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

*Remote areas of Alaska* means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary CI ICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

*Spark ignition* means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*Subpart* means 40 CFR part 60, subpart IIII.

**Table 1 to Subpart IIII of Part 60 - Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder**

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

| Maximum engine power  | Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr) |    |                 |           |             |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------|-----------|-------------|
|                       | NMHC + NO <sub>x</sub>                                                                                                                                                                                                                     | HC | NO <sub>x</sub> | CO        | PM          |
| KW<8 (HP<11)          | 10.5 (7.8)                                                                                                                                                                                                                                 |    |                 | 8.0 (6.0) | 1.0 (0.75)  |
| 8≤KW<19<br>(11≤HP<25) | 9.5 (7.1)                                                                                                                                                                                                                                  |    |                 | 6.6 (4.9) | 0.80 (0.60) |

| Maximum engine power       | Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr) |           |                 |            |             |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|------------|-------------|
|                            | NMHC + NO <sub>x</sub>                                                                                                                                                                                                                     | HC        | NO <sub>x</sub> | CO         | PM          |
| 19≤KW<37<br>(25≤HP<50)     | 9.5 (7.1)                                                                                                                                                                                                                                  |           |                 | 5.5 (4.1)  | 0.80 (0.60) |
| 37≤KW<56<br>(50≤HP<75)     |                                                                                                                                                                                                                                            |           | 9.2 (6.9)       |            |             |
| 56≤KW<75<br>(75≤HP<100)    |                                                                                                                                                                                                                                            |           | 9.2 (6.9)       |            |             |
| 75≤KW<130<br>(100≤HP<175)  |                                                                                                                                                                                                                                            |           | 9.2 (6.9)       |            |             |
| 130≤KW<225<br>(175≤HP<300) |                                                                                                                                                                                                                                            | 1.3 (1.0) | 9.2 (6.9)       | 11.4 (8.5) | 0.54 (0.40) |
| 225≤KW<450<br>(300≤HP<600) |                                                                                                                                                                                                                                            | 1.3 (1.0) | 9.2 (6.9)       | 11.4 (8.5) | 0.54 (0.40) |
| 450≤KW≤560<br>(600≤HP≤750) |                                                                                                                                                                                                                                            | 1.3 (1.0) | 9.2 (6.9)       | 11.4 (8.5) | 0.54 (0.40) |
| KW>560 (HP>750)            |                                                                                                                                                                                                                                            | 1.3 (1.0) | 9.2 (6.9)       | 11.4 (8.5) | 0.54 (0.40) |

**Table 2 to Subpart IIII of Part 60 - Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder**

[As stated in § 60.4202(a)(1), you must comply with the following emission standards]

| Engine power           | Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr) |                        |           |             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------|-------------|
|                        | Model year(s)                                                                                                                                                   | NO <sub>x</sub> + NMHC | CO        | PM          |
| KW<8 (HP<11)           | 2008 +                                                                                                                                                          | 7.5 (5.6)              | 8.0 (6.0) | 0.40 (0.30) |
| 8≤KW<19<br>(11≤HP<25)  | 2008 +                                                                                                                                                          | 7.5 (5.6)              | 6.6 (4.9) | 0.40 (0.30) |
| 19≤KW<37<br>(25≤HP<50) | 2008 +                                                                                                                                                          | 7.5 (5.6)              | 5.5 (4.1) | 0.30 (0.22) |

**Table 3 to Subpart IIII of Part 60 - Certification Requirements for Stationary Fire Pump Engines**

As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

| Engine power               | Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d) <sup>1</sup> |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| KW<75<br>(HP<100)          | 2011                                                                                                                          |
| 75≤KW<130<br>(100≤HP<175)  | 2010                                                                                                                          |
| 130≤KW≤560<br>(175≤HP≤750) | 2009                                                                                                                          |
| KW>560<br>(HP>750)         | 2008                                                                                                                          |

<sup>1</sup>Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

**Table 4 to Subpart IIII of Part 60 - Emission Standards for Stationary Fire Pump Engines**

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

| Maximum engine power    | Model year(s)       | NMHC + NO <sub>x</sub> | CO        | PM          |
|-------------------------|---------------------|------------------------|-----------|-------------|
| KW<8 (HP<11)            | 2010 and earlier    | 10.5 (7.8)             | 8.0 (6.0) | 1.0 (0.75)  |
|                         | 2011 +              | 7.5 (5.6)              |           | 0.40 (0.30) |
| 8≤KW<19 (11≤HP<25)      | 2010 and earlier    | 9.5 (7.1)              | 6.6 (4.9) | 0.80 (0.60) |
|                         | 2011 +              | 7.5 (5.6)              |           | 0.40 (0.30) |
| 19≤KW<37 (25≤HP<50)     | 2010 and earlier    | 9.5 (7.1)              | 5.5 (4.1) | 0.80 (0.60) |
|                         | 2011 +              | 7.5 (5.6)              |           | 0.30 (0.22) |
| 37≤KW<56 (50≤HP<75)     | 2010 and earlier    | 10.5 (7.8)             | 5.0 (3.7) | 0.80 (0.60) |
|                         | 2011 + <sup>1</sup> | 4.7 (3.5)              |           | 0.40 (0.30) |
| 56≤KW<75 (75≤HP<100)    | 2010 and earlier    | 10.5 (7.8)             | 5.0 (3.7) | 0.80 (0.60) |
|                         | 2011 + <sup>1</sup> | 4.7 (3.5)              |           | 0.40 (0.30) |
| 75≤KW<130 (100≤HP<175)  | 2009 and earlier    | 10.5 (7.8)             | 5.0 (3.7) | 0.80 (0.60) |
|                         | 2010 + <sup>2</sup> | 4.0 (3.0)              |           | 0.30 (0.22) |
| 130≤KW<225 (175≤HP<300) | 2008 and earlier    | 10.5 (7.8)             | 3.5 (2.6) | 0.54 (0.40) |

| Maximum engine power    | Model year(s)       | NMHC + NO <sub>x</sub> | CO        | PM          |
|-------------------------|---------------------|------------------------|-----------|-------------|
|                         | 2009 + <sup>3</sup> | 4.0 (3.0)              |           | 0.20 (0.15) |
| 225≤KW<450 (300≤HP<600) | 2008 and earlier    | 10.5 (7.8)             | 3.5 (2.6) | 0.54 (0.40) |
|                         | 2009 + <sup>3</sup> | 4.0 (3.0)              |           | 0.20 (0.15) |
| 450≤KW≤560 (600≤HP≤750) | 2008 and earlier    | 10.5 (7.8)             | 3.5 (2.6) | 0.54 (0.40) |
|                         | 2009 +              | 4.0 (3.0)              |           | 0.20 (0.15) |
| KW>560 (HP>750)         | 2007 and earlier    | 10.5 (7.8)             | 3.5 (2.6) | 0.54 (0.40) |
|                         | 2008 +              | 6.4 (4.8)              |           | 0.20 (0.15) |

<sup>1</sup> For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

<sup>2</sup> For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

<sup>3</sup> In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

#### Table 5 to Subpart IIII of Part 60 - Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

| Engine power          | Starting model year |
|-----------------------|---------------------|
| 19≤KW<56 (25≤HP<75)   | 2013                |
| 56≤KW<130 (75≤HP<175) | 2012                |
| KW≥130 (HP≥175)       | 2011                |

#### Table 6 to Subpart IIII of Part 60 - Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

| Mode No. | Engine speed <sup>1</sup> | Torque (percent) <sup>2</sup> | Weighting factors |
|----------|---------------------------|-------------------------------|-------------------|
| 1        | Rated                     | 100                           | 0.30              |
| 2        | Rated                     | 75                            | 0.50              |
| 3        | Rated                     | 50                            | 0.20              |

<sup>1</sup> Engine speed:  $\pm 2$  percent of point.

<sup>2</sup> Torque: NFPA certified nameplate HP for 100 percent point. All points should be  $\pm 2$  percent of engine percent load value.

**Table 7 to Subpart IIII of Part 60 - Requirements for Performance Tests for Stationary CI ICE With a Displacement of  $\geq 30$  Liters per Cylinder**

As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of  $\geq 30$  liters per cylinder:

| Each                                                                                             | Complying with the requirement to                          | You must                                                                                                                   | Using                                                                                                                                              | According to the following requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Stationary CI internal combustion engine with a displacement of $\geq 30$ liters per cylinder | a. Reduce NO <sub>x</sub> emissions by 90 percent or more; | i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device; |                                                                                                                                                    | (a) For NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts $\leq 6$ inches in diameter may be sampled at a single point located at the duct centroid and ducts $>6$ and $\leq 12$ inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is $>12$ inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4. |
|                                                                                                  |                                                            | ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;                                                  | (1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2                                                                                            | (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                  |                                                            | iii. If necessary, measure moisture content at the inlet and outlet of the control device; and                             | (2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17) | (c) Measurements to determine moisture content must be made at the same time as the measurements for NO <sub>x</sub> concentration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                  |                                                            | iv. Measure NO <sub>x</sub> at the inlet and outlet of the control device.                                                 | (3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by                        | (d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Each | Complying with the requirement to                                                                      | You must                                                                                                                                                                                   | Using                                                                                                                                               | According to the following requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                                                                                                        |                                                                                                                                                                                            | reference, see § 60.17)                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|      | b. Limit the concentration of NO <sub>x</sub> in the stationary CI internal combustion engine exhaust. | i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;                                                   |                                                                                                                                                     | (a) For NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4. |
|      |                                                                                                        | ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;                                                         | (1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2                                                                                             | (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurement for NO <sub>x</sub> concentration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|      |                                                                                                        | iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and                                                        | (2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)  | (c) Measurements to determine moisture content must be made at the same time as the measurement for NO <sub>x</sub> concentration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|      |                                                                                                        | iv. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. | (3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17) | (d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|      | c. Reduce PM emissions by 60 percent or more                                                           | i. Select the sampling port location and the number of traverse points;                                                                                                                    | (1) Method 1 or 1A of 40 CFR part 60, appendix A-1                                                                                                  | (a) Sampling sites must be located at the inlet and outlet of the control device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Each | Complying with the requirement to                                                        | You must                                                                                                                            | Using                                                   | According to the following requirements                                                                                                                |
|------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                                                                                          | ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;                                                           | (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 | (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.                     |
|      |                                                                                          | iii. If necessary, measure moisture content at the inlet and outlet of the control device; and                                      | (3) Method 4 of 40 CFR part 60, appendix A-3            | (c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.                             |
|      |                                                                                          | iv. Measure PM at the inlet and outlet of the control device.                                                                       | (4) Method 5 of 40 CFR part 60, appendix A-3            | (d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
|      | d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust | i. Select the sampling port location and the number of traverse points;                                                             | (1) Method 1 or 1A of 40 CFR part 60, appendix A-1      | (a) If using a control device, the sampling site must be located at the outlet of the control device.                                                  |
|      |                                                                                          | ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;  | (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 | (b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.                     |
|      |                                                                                          | iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (3) Method 4 of 40 CFR part 60, appendix A-3            | (c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.                                 |
|      |                                                                                          | iv. Measure PM at the exhaust of the stationary internal combustion engine.                                                         | (4) Method 5 of 40 CFR part 60, appendix A-3            | (d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |

**Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII**

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

| General Provisions citation | Subject of citation                                    | Applies to subpart | Explanation                                                                                                                              |
|-----------------------------|--------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| § 60.1                      | General applicability of the General Provisions        | Yes                |                                                                                                                                          |
| § 60.2                      | Definitions                                            | Yes                | Additional terms defined in § 60.4219.                                                                                                   |
| § 60.3                      | Units and abbreviations                                | Yes                |                                                                                                                                          |
| § 60.4                      | Address                                                | Yes                |                                                                                                                                          |
| § 60.5                      | Determination of construction or modification          | Yes                |                                                                                                                                          |
| § 60.6                      | Review of plans                                        | Yes                |                                                                                                                                          |
| § 60.7                      | Notification and Recordkeeping                         | Yes                | Except that § 60.7 only applies as specified in § 60.4214(a).                                                                            |
| § 60.8                      | Performance tests                                      | Yes                | Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified. |
| § 60.9                      | Availability of information                            | Yes                |                                                                                                                                          |
| § 60.10                     | State Authority                                        | Yes                |                                                                                                                                          |
| § 60.11                     | Compliance with standards and maintenance requirements | No                 | Requirements are specified in subpart IIII.                                                                                              |
| § 60.12                     | Circumvention                                          | Yes                |                                                                                                                                          |
| § 60.13                     | Monitoring requirements                                | Yes                | Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.                                   |
| § 60.14                     | Modification                                           | Yes                |                                                                                                                                          |
| § 60.15                     | Reconstruction                                         | Yes                |                                                                                                                                          |
| § 60.16                     | Priority list                                          | Yes                |                                                                                                                                          |
| § 60.17                     | Incorporations by reference                            | Yes                |                                                                                                                                          |
| § 60.18                     | General control device requirements                    | No                 |                                                                                                                                          |
| § 60.19                     | General notification and reporting requirements        | Yes                |                                                                                                                                          |

**Appendix E. 40 CFR Part 60, Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, and on or Before April 25, 2023**

**§ 60.480a Applicability and designation of affected facility.**

(a)

(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in § 60.481a) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, and on or before April 25, 2023, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)

(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in § 60.486a(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) of a chemical listed in § 60.489 is exempt from §§ 60.482-1a through 60.482-10a.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§ 60.482-1a through 60.482-10a.

(4) Any affected facility that produces beverage alcohol is exempt from §§ 60.482-1a through 60.482-10a.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§ 60.482-1a through 60.482-10a.

(e) *Alternative means of compliance —*

(1) *Option to comply with part 65.*

(i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§ 60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §§ 60.485a(d), (e), and (f), and 60.486a(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(1)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

(2) *Part 63, subpart H.*

(i) Owners or operators may choose to comply with the provisions of 40 CFR part 63, subpart H, to satisfy the requirements of §§ 60.482-1a through 60.487a for an affected facility. When choosing to

comply with 40 CFR part 63, subpart H, the requirements of § 60.485a(d), (e), and (f), and § 60.486a(i) and (j) still apply.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 63, subpart H must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 63, subpart H, except that provisions required to be met prior to implementing 40 CFR part 63 still apply. Owners and operators who choose to comply with 40 CFR part 63, subpart H, must comply with 40 CFR part 63, subpart A.

(f) Owners and operators of flares that are subject to the flare related requirements of this subpart and flare related requirements of any other regulation in this part or 40 CFR part 61 or 63, may elect to comply with the requirements in § 60.619a, § 60.669a, or § 60.709a, in lieu of all flare related requirements in any other regulation in this part or 40 CFR part 61 or 63.

[72 FR 64883, Nov. 16, 2007, as amended at 73 FR 31375, June 2, 2008; 89 FR 43070, May 16, 2024]

**§ 60.481a Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA) or in subpart A of part 60, and the following terms shall have the specific meanings given them.

*Capital expenditure* means, in addition to the definition in § 60.2, an expenditure for a physical or operational change to an existing facility that:

(1) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation:  $P = R \times A$ , where:

(i) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

**Equation 1 to Capital Expenditure Paragraph (1)(i)**

$$A = Y \times (B \div 100);$$

(ii) The percent Y is determined from the following equation:  $Y = 1.0 - 0.575 \log X$ , where X is:

- (A) 2006 minus the year of construction if the physical or operational change to the existing facility was on or after November 16, 2007, or
- (B) 1982 minus the year of construction if the physical or operational change to the existing facility was prior to November 16, 2007; and

(iii) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

**Table 1 to Capital Expenditure Paragraph (1)(iii)—Determining Applicable Value for B**

| Subpart applicable to facility | Value of B to be used in equation |
|--------------------------------|-----------------------------------|
| (A) VVa                        | 12.5                              |
| (B) GGGa                       | 7.0                               |

*Closed-loop system* means an enclosed system that returns process fluid to the process.

*Closed-purge system* means a system or combination of systems and portable containers to capture purged liquids. Containers for purged liquids must be covered or closed when not being filled or emptied.

*Closed vent system* means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

*Connector* means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation.

*Control device* means an enclosed combustion device, vapor recovery system, or flare.

*Distance piece* means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

*Double block and bleed system* means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

*Duct work* means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

*Equipment* means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

*First attempt at repair* means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

*Fuel gas* means gases that are combusted to derive useful work or heat.

*Fuel gas system* means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

*Hard-piping* means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, P.O. Box 2300, Fairfield, NJ 07007-2300).

*In gas/vapor service* means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

*In heavy liquid service* means that the piece of equipment is not in gas/vapor service or in light liquid service.

*In light liquid service* means that the piece of equipment contains a liquid that meets the conditions specified in § 60.485a(e).

*In-situ sampling systems* means nonextractive samplers or in-line samplers.

*In vacuum service* means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa) (0.7 psia) below ambient pressure.

*In VOC service* means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of § 60.485a(d) specify how to determine that a piece of equipment is not in VOC service.)

*Initial calibration value* means the concentration measured during the initial calibration at the beginning of each day required in § 60.485a(b)(1), or the most recent calibration if the instrument is recalibrated during the day (i.e., the calibration is adjusted) after a calibration drift assessment.

*Liquids dripping* means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

*Open-ended valve or line* means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

*Pressure release means* the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

*Process improvement* means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

*Process unit* means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489a. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

*Process unit shutdown* means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:

- (1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours.
- (2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.
- (3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

*Quarter* means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

*Repaired* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§ 60.482-2a(b)(2)(ii) and (d)(6)(ii) and (d)(6)(iii), 60.482-3a(f), and 60.482-10a(f)(1)(ii), is re-monitored as specified in § 60.485a(b) to verify that emissions from the equipment are below the applicable leak definition.

*Replacement cost* means the capital needed to purchase all the depreciable components in a facility.

*Sampling connection system* means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

*Sensor* means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

*Storage vessel* means a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges or ships.

*Synthetic organic chemicals manufacturing industry* means the industry that produces, as intermediates or final products, one or more of the chemicals listed in § 60.489.

*Transfer rack* means the collection of loading arms and loading hoses, at a single loading rack, that are used to fill tank trucks and/or railcars with organic liquids.

*Volatile organic compounds* or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in § 60.2 Definitions.

[72 FR 64883, Nov. 16, 2007, as amended at 89 FR 43070, May 16, 2024; 89 FR 55522, July 5, 2024]

§ 60.482-1a Standards: General.

- (a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1a through 60.482-10a or § 60.480a(e) for all equipment within 180 days of initial startup.
- (b) Compliance with §§ 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485a.
- (c)
  - (1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§ 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in § 60.484a.
  - (2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of § 60.482-2a, § 60.482-3a, § 60.482-5a, § 60.482-6a, § 60.482-7a, § 60.482-8a, or § 60.482-10a, an owner or operator shall comply with the requirements of that determination.
- (d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482-2a through 60.482-10a if it is identified as required in § 60.486a(e)(5).
- (e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of §§ 60.482-2a through 60.482-10a if it is identified as required in § 60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section.
  - (1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.
  - (2) The equipment is in VOC service only during process malfunctions or other emergencies.
  - (3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.
- (f)
  - (1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in §§ 60.482-2a, 60.482-7a, and 60.483.2a:

| Operating time (percent of hours during year) | Equivalent monitoring frequency time in use |           |              |
|-----------------------------------------------|---------------------------------------------|-----------|--------------|
|                                               | Monthly                                     | Quarterly | Semiannually |



| Operating time (percent of hours during year) | Equivalent monitoring frequency time in use |                |               |
|-----------------------------------------------|---------------------------------------------|----------------|---------------|
|                                               | Monthly                                     | Quarterly      | Semiannually  |
| 0 to <25                                      | Quarterly                                   | Annually       | Annually.     |
| 25 to <50                                     | Quarterly                                   | Semiannually   | Annually.     |
| 50 to <75                                     | Bimonthly                                   | Three quarters | Semiannually. |
| 75 to 100                                     | Monthly                                     | Quarterly      | Semiannually. |

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (*i.e.*, once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

[72 FR 64883, Nov. 16, 2007, as amended at 89 FR 43070, May 16, 2024; 89 FR 55522, July 5, 2024; 89 FR 74136, Sept. 12, 2024]

**§ 60.482-2a Standards: Pumps in light liquid service.**

(a)

(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b), except as provided in § 60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in § 60.482-1a(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in § 60.482-1a(f).

(b)

(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

(ii) 2,000 ppm or greater for all other pumps.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable.

(i) Monitor the pump within 5 days as specified in § 60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping.

(c)

(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met.

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10a; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4)

(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection.

(A) Monitor the pump within 5 days as specified in § 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

(5)

(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.

(6)

(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing;

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485a(c); and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482-10a, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

**§ 60.482-3a Standards: Compressors.**

- (a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in § 60.482-1a(c) and paragraphs (h), (i), and (j) of this section.
- (b) Each compressor seal system as required in paragraph (a) of this section shall be:
  - (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
  - (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10a; or
  - (3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
- (c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.
- (d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
- (e)
  - (1) Each sensor as required in paragraph (d) of this section shall be checked daily or shall be equipped with an audible alarm.
  - (2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- (f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.
- (g)
  - (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.
  - (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of § 60.482-10a, except as provided in paragraph (i) of this section.
- (i) Any compressor that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a) through (h) of this section if the compressor:
  - (1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in § 60.485a(c); and
  - (2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.
- (j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of § 60.14 or § 60.15 is exempt from paragraphs (a) through (e) and (h) of this section, provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

**§ 60.482-4a Standards: Pressure relief devices in gas/vapor service.**

- (a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485a(c).
- (b)
- (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9a.
- (2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485a(c).
- (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482-10a is exempted from the requirements of paragraphs (a) and (b) of this section.
- (d)
- (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.
- (2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482-9a.

**§ 60.482-5a Standards: Sampling connection systems.**

- (a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in § 60.482-1a(c) and paragraph (c) of this section.
- (b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.
- (1) Gases displaced during filling of the sample container are not required to be collected or captured.
- (2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.
- (3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.
- (4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.
- (i) Return the purged process fluid directly to the process line.
- (ii) Collect and recycle the purged process fluid to a process.
- (iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10a.
- (iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

- (A) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;
- (B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;
- (C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;
- (D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or
- (E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

**§ 60.482-6a Standards: Open-ended valves or lines.**

(a)

(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1a(c) and paragraphs (d) and (e) of this section.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

**§ 60.482-7a Standards: Valves in gas/vapor service and in light liquid service.**

(a)

(1) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c) and (f), and §§ 60.483-1a and 60.483-2a.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking

valve and except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c), and §§ 60.483-1a and 60.483-2a.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with § 60.483-1a or § 60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in § 60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(c)

(1)

(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)

(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in § 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485a(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:

- (1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section, and
- (2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in § 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:

- (1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
- (2) The process unit within which the valve is located either:
  - (i) Becomes an affected facility through § 60.14 or § 60.15 and was constructed on or before January 5, 1981; or
  - (ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.
- (3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

**§ 60.482-8a Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.**

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:

- (1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.
- (2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)

- (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.
- (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §§ 60.482-2a(c)(2) and 60.482-7a(e).

**§ 60.482-9a Standards: Delay of repair.**

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.



(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves and connectors will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10a.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

**§ 60.482-10a Standards: Closed vent systems and control devices.**

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of § 60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 60.485a(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 60.485a(b); and

(ii) Conduct annual inspections according to the procedures in § 60.485a(b).

(g) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§ 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486a(c).

(4) For each inspection conducted in accordance with § 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

**§ 60.483-1a Alternative standards for valves—allowable percentage of valves leaking.**

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487a(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with § 60.482-7a(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in § 60.485a(b).

(2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in § 60.485a(h).

**§ 60.483-2a Alternative standards for valves—skip period leak detection and repair.**

(a)

(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in § 60.487(d)a.

(b)

(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in § 60.482-7a.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in § 60.482-7a but can again elect to use this section.

- (5) The percent of valves leaking shall be determined as described in § 60.485a(h).
- (6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.
- (7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with § 60.482-7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

**§ 60.484a Equivalence of means of emission limitation.**

- (a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.
- (b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:
  - (1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.
  - (2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.
  - (3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.
- (c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:
  - (1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.
  - (2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.
  - (3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.
  - (4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.
  - (5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4) of this section.
  - (6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.
- (d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.
- (e)

(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the CAA.

(f)

(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

#### **§ 60.485a Test methods and procedures.**

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§ 60.482-1a through 60.482-10a, 60.483a, and 60.484a as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of this part. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 to this part, section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(8). Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value for each scale and multiply by 100 to express the calibration drift as a percentage.

(i) If a calibration drift assessment shows a negative drift of more than 10 percent, then all equipment with instrument readings between the appropriate leak definition and the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) that was monitored since the last calibration must be re-monitored.

(ii) If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) monitored since the last calibration may be re-monitored.

(c) The owner or operator shall determine compliance with the no-detectable-emission standards in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 of appendix A-7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 of appendix A-7 of this part shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{\max} = K_1 + K_2 H_T$$

Where:

$V_{\max}$  = Maximum permitted velocity, m/sec (ft/sec).

$H_T$  = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

$K_1$  = 8.706 m/sec (metric units) = 28.56 ft/sec (English units).

$K_2$  = 0.7084 m<sup>4</sup>/(MJ-sec) (metric units) = 0.087 ft<sup>4</sup>/(Btu-sec) (English units).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

$K$  = Conversion constant,  $1.740 \times 10^{-7}$  (g-mole)(MJ)/(ppm-scm-kcal) (metric units) =  $4.674 \times 10^{-6}$  [(g-mole)(Btu)/(ppm-scf-kcal)] (English units).

$C_i$  = Concentration of sample component "i," ppm

$H_i$  = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole.

(5) Method 18 of appendix A-6 to this part and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference, see § 60.17) shall be used to determine the concentration of sample component "i." ASTM D6420-18 (incorporated by reference, see § 60.17) may be used in lieu of Method 18, under the conditions specified in paragraphs (g)(5)(i) through (iii) of this section.

(i) If the target compounds are all known and are all listed in Section 1.1 of ASTM D6420-18 as measurable.

(ii) ASTM D6420-18 may not be used for methane and ethane.

(iii) ASTM D6420-18 may not be used as a total VOC method.

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference-see § 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D of appendix A-7 of this part, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with § 60.483-1a or § 60.483-2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$$\%V_L = (V_L / V_T) * 100$$

Where:

$\%V_L$  = Percent leaking valves.

$V_L$  = Number of valves found leaking.

$V_T$  = The sum of the total number of valves monitored.

- (2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.
- (3) The number of valves leaking shall include valves for which repair has been delayed.
- (4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.
- (5) If the process unit has been subdivided in accordance with § 60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.
- (6) The total number of valves monitored does not include a valve monitored to verify repair.

[72 FR 64883, Nov. 16, 2007, as amended at 89 FR 43070, May 16, 2024]

**§ 60.486a Recordkeeping requirements.**

(a)

- (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.
- (2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.
- (3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, and 60.483-2a.
  - (i) Monitoring instrument identification.
  - (ii) Operator identification.
  - (iii) Equipment identification.
  - (iv) Date of monitoring.
  - (v) Instrument reading.

(b) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, and 60.483-2a, the following requirements apply:

- (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
- (2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482-7a(c) and no leak has been detected during those 2 months.
- (3) [Reserved]

(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

- (1) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.
- (2) The date the leak was detected and the dates of each attempt to repair the leak.



- (3) Repair methods applied in each attempt to repair the leak.
  - (4) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonreparable, except when a pump is repaired by eliminating indications of liquids dripping.
  - (5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
  - (6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
  - (7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
  - (8) Dates of process unit shutdowns that occur while the equipment is unrepaired.
  - (9) The date of successful repair of the leak.
- (d) The following information pertaining to the design requirements for closed vent systems and control devices described in § 60.482-10a shall be recorded and kept in a readily accessible location:
- (1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - (2) The dates and descriptions of any changes in the design specifications.
  - (3) A description of the parameter or parameters monitored, as required in § 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
  - (4) Periods when the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.
  - (5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.
- (e) The following information pertaining to all equipment subject to the requirements in §§ 60.482-1a to 60.482-10a shall be recorded in a log that is kept in a readily accessible location:
- (1) A list of identification numbers for equipment subject to the requirements of this subpart.
  - (2)
    - (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).
    - (ii) The designation of equipment as subject to the requirements of § 60.482-2a(e), § 60.482-3a(i), or § 60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.
  - (3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482-4a.
  - (4)
    - (i) The dates of each compliance test as required in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).
    - (ii) The background level measured during each compliance test.
    - (iii) The maximum instrument reading measured at the equipment during each compliance test.
  - (5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with § 60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and § 60.485a(b).

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.

(v) Results of each calibration drift assessment required by § 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) [Reserved]

(10) Records of each release from a pressure relief device subject to § 60.482-4a.

(f) The following information pertaining to all valves subject to the requirements of § 60.482-7a(g) and (h), and all pumps subject to the requirements of § 60.482-2a(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with § 60.483-2a:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§ 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in § 60.480a(d):

- (1) An analysis demonstrating the design capacity of the affected facility,
- (2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and
- (3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of § 60.7(b) and (d) do not apply to affected facilities subject to this subpart.

(l) Any records required to be maintained by this subpart that are submitted electronically via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

[72 FR 64883, Nov. 16, 2007, as amended at 89 FR 43071, May 16, 2024]

#### **§ 60.487a Reporting requirements.**

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. Beginning on July 15, 2025, or once the report template for this subpart has been available on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for 1 year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in paragraph (g) of this section. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(b) The initial semiannual report to the Administrator shall include the following information:

- (1) Process unit identification.
- (2) Number of valves subject to the requirements of § 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of § 60.482-7a(f).
- (3) Number of pumps subject to the requirements of § 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of § 60.482-2a(e) and those pumps complying with § 60.482-2a(f).
- (4) Number of compressors subject to the requirements of § 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of § 60.482-3a(i) and those compressors complying with § 60.482-3a(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486a:

- (1) Process unit identification.
- (2) For each month during the semiannual reporting period,
  - (i) Number of valves for which leaks were detected as described in § 60.482-7a(b) or § 60.483-2a,
  - (ii) Number of valves for which leaks were not repaired as required in § 60.482-7a(d)(1),
  - (iii) Number of pumps for which leaks were detected as described in § 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in § 60.482-2a(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in § 60.482-3a(f),

(vi) Number of compressors for which leaks were not repaired as required in § 60.482-3a(g)(1), and

(vii)-(x) [Reserved]

(xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§ 60.483-1a or 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with § 60.8 of the General Provisions. The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the state. The EPA will not approve a waiver of electronic reporting to the EPA in delegating enforcement authority. Thus, electronic reporting to the EPA cannot be waived, and as such, the provisions of this paragraph cannot be used to relieve owners or operators of affected facilities of the requirement to submit the electronic reports required in this section to the EPA.

(g) If an owner or operator is required to submit notifications or reports following the procedure specified in this paragraph (g), the owner or operator must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to the owner or operator. Do not use CEDRI to submit information the owner or operator claims as CBI. Although the EPA does not expect persons to assert a claim of CBI, if you an owner or operator wishes to assert a CBI claim for some of the information in the report or notification, the owner or operator must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (g)(1) and (2) of this section. Clearly mark the part or all of the information claimed to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. The owner or operator must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (g).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov), and as described above, should include clear CBI markings. ERT files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other

files should be flagged to the attention of the SOCMI NSPS Sector Lead. Owners and operators who do not have their own file sharing service and who require assistance with submitting large electronic files that exceed the file size limit for email attachments should email [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov) to request a file transfer link.

(2) If an owner or operator cannot transmit the file electronically, the owner or operator may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711. ERT files should be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should be sent to the attention of the SOCMI NSPS Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(h) Owners and operators required to electronically submit notifications or reports through CEDRI in the EPA's CDX may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, owners and operators must meet the requirements outlined in paragraphs (h)(1) through (7) of this section.

(1) The owner or operator must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) The owner or operator must submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) The owner or operator must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which the owner or operator proposes to report, or if the owner or operator has already met the reporting requirement at the time of the notification, the date the report was submitted.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(i) Owners and operators required to electronically submit notifications or reports through CEDRI in the EPA's CDX may assert a claim of *force majeure* for failure to timely comply with that reporting requirement. To assert a claim of *force majeure*, owners and operators must meet the requirements outlined in paragraphs (i)(1) through (5) of this section.

(1) An owner or operator may submit a claim if a *force majeure* event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a *force majeure* event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or

any entity controlled by the affected facility that prevents the owner or operator from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(2) The owner or operator must submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) The owner or operator must provide to the Administrator:

(i) A written description of the *force majeure* event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the *force majeure* event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which the owner or operator proposes to report, or if the owner or operator has already met the reporting requirement at the time of the notification, the date the report was submitted.

(4) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs.

[72 FR 64883, Nov. 16, 2007, as amended at 89 FR 43071, May 16, 2024]

#### **§ 60.488a Reconstruction.**

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under § 60.15: Pump seals, nuts and bolts, rupture disks, and packings.

(b) Under § 60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in § 60.488a(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

#### **§ 60.489a List of chemicals produced by affected facilities.**

Process units that produce, as intermediates or final products, chemicals listed in § 60.489 are covered under this subpart. The applicability date for process units producing one or more of these chemicals is November 8, 2006.

## Appendix F. Ambient Air Boundary Control Strategy Plan Map

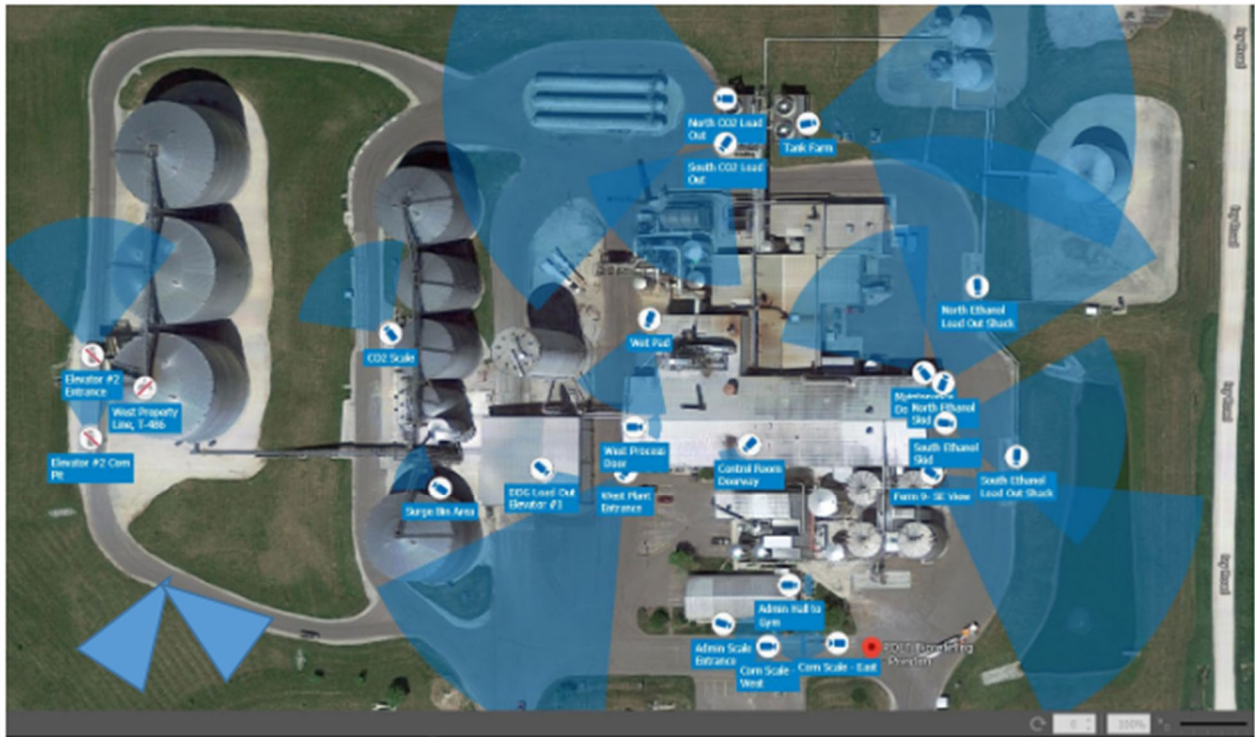
### Ambient Air Boundary Control Strategy Plan POET Biorefining - Preston, LLC 2019

The facility property boundary is modeled as the ambient air boundary. The north boundary and the northern portion of the eastern boundary of the facility is fenced as shown in Figure 1. The property boundary along the western boundary (Hwy 52), the southern boundary (Industrial Drive) and the southern portion of the eastern boundary (Ivy Road) along with the fenced property boundary of the facility will be monitored by staff via onsite cameras at least once per 24-hour period during plant operation to restrict public access to the facility. Cameras will be installed at the locations shown in Figure 1. Once each 24-hour period, POET will document that surveillance occurred. Additionally, signs will be posted every 1000 feet along the western, southern and eastern property boundary warning 'no trespassing'. The combination of these efforts sufficiently restricts the general public from accessing the facility property boundary. Any breach will be reported as a deviation in the semi-annual deviation report required by the facility's air permit. The deviation report will identify any additional steps that were taken to control access to that portion of the property.

Figure 1 - Ambient Air Boundary Control Strategy Plan Map



### Figure 2 Actual Camera Angles Post-Installation



Note: The camera symbols in the attached figure are solely to show the locations and the direction of the cameras, but do not represent the viewing angle or any camera specifications.



**Appendix G. 40 CFR Part 60, Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023**

**§60.110b Applicability and designation of affected facility.**

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984, and on or before October 4, 2023.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

- (1) Vessels at coke oven by-product plants.
- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to 1,589.874 m<sup>3</sup> used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.
- (8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance—*

(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that

the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

5) Option to comply with part 63, subpart WW, of this chapter. Except as specified in paragraphs (e)(5)(i) through (iv) of this section, owners or operators may choose to comply with 40 CFR part 63, subpart WW, to satisfy the requirements of §§ 60.112b through 60.117b for storage vessels either with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa, or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa.

(i) The general provisions in subpart A of this part apply instead of the general provisions in subpart A of part 63 of this chapter.

(ii) Where terms are defined in both this subpart and 40 CFR part 63, subpart WW, the definitions in this subpart apply.

(iii) Owners or operators who choose to comply with 40 CFR part 63, subpart WW, also must comply with the monitoring requirements of § 60.116b(a), (c), (e), and (f)(1), except as specified in paragraphs (e)(5)(iii)(A) through (C) of this section.

(A) The reference to all records applies only to the records required by § 60.116b(c);

(B) The reference to § 60.116b(b) does not apply; and

(C) The reference to § 60.116b(g) does not apply.

(iv) Owners or operators who choose to comply with 40 CFR part 63, subpart WW, must also keep records and furnish reports as specified in paragraphs (e)(5)(iv)(A) through (F) of this section.

(A) For each affected facility, the owner or operator must notify the Administrator at least 30 days before the first inspection is conducted under 40 CFR part 63, subpart WW. After this notification is submitted to the Administrator, the owner or operator must continue to comply with the alternative standard described in this paragraph (e)(5) until the owner or operator submits another notification to the Administrator indicating the affected facility is using the requirements of §§ 60.112b through 60.117b instead of the alternative standard described in this paragraph (e)(5). The compliance schedule for events does not reset upon switching between compliance with this subpart and 40 CFR part 63, subpart WW.

(B) Keep a record of each affected facility using the alternative standard described in this paragraph (e)(5) when conducting an inspection required by § 63.1063(c)(1) of this chapter.

(C) Keep a record of each affected facility using the alternative standard described in this paragraph (e)(5) when conducting an inspection required by § 63.1063(c)(2) of this chapter.

(D) Copies of all records and reports kept pursuant to § 60.115b(a) and (b) that have not met the 2-year record retention required by the introductory text of § 60.115b must be kept for an additional 2 years after the date of submittal of the inspection notification specified in paragraph (e)(5)(iv)(A) of this section, indicating the affected facility is using the requirements of 40 CFR part 63, subpart WW.

(E) Copies of all records and reports kept pursuant to § 63.1065 of this chapter that have not met the 5-year record retention required by the introductory text of § 63.1065 must be kept for an additional 5 years after the date of submittal of the notification specified in paragraph (e)(5)(iv)(A) of this section, indicating the affected facility is using the requirements of §§ 60.112b through 60.117b.

(F) The following exceptions to the reporting requirements of § 63.1066 of this chapter apply:

- (1) The notification of initial startup required under § 63.1066(a)(1) and (2) of this chapter must be submitted as an attachment to the notification required by §§ 60.7(a)(3) and 60.115b(a)(1);
- (2) The reference in § 63.1066(b)(2) of this chapter to periodic reports “when inspection failures occur” means to submit inspections results within 60 days of the initial gap measurements required by § 63.1063(c)(2)(i) of this chapter and within 30 days of all other inspections required by § 63.1063(c)(1) and (2) of this chapter.

#### **§60.111b Definitions.**

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

*Bulk gasoline plant* means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

*Condensate* means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

*Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

*Fill* means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

*Gasoline service station* means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

*Maximum true vapor pressure* means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

- (1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see §60.17); or
- (2) As obtained from standard reference texts; or
- (3) As determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17);
- (4) Any other method approved by the Administrator.

*Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

*Petroleum liquids* means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

*Process tank* means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

*Reid vapor pressure* means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference—see §60.17).

*Storage vessel* means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;
- (2) Subsurface caverns or porous rock reservoirs; or
- (3) Process tanks.

*Volatile organic liquid (VOL)* means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

*Waste* means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

#### **§60.112b Standard for volatile organic compounds (VOC).**

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

- (iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

- (i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
  - (A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
  - (B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).
- (ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each

emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m<sup>3</sup> which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

#### **§60.113b Testing and procedures.**

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the

secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

- (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or
- (ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

- (1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.
  - (i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

- (ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
  - (iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.
- (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
- (i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
  - (ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
  - (iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.
- (4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:
- (i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
    - (A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
    - (B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
  - (ii) The secondary seal is to meet the following requirements:
    - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.
    - (B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.
    - (C) There are to be no holes, tears, or other openings in the seal or seal fabric.
  - (iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.



(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

**§60.114b Alternative means of emission limitation.**

- (a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.
- (b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
- (c) Any person seeking permission under this section shall submit to the Administrator a written application including:
- (1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
  - (2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
- (d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

**§60.115b Reporting and recordkeeping requirements.**

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

- (a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
- (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). Prior to October 15, 2024, this report shall be an attachment to the notification required by § 60.7(a)(3). Beginning October 15, 2024, the owner or operator must submit all subsequent reports in PDF format following the procedures specified in paragraph (e) of this section. report shall be an attachment to the notification required by §60.7(a)(3).
  - (2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
  - (3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Beginning October 15, 2024, all subsequent reports must be submitted in PDF format following the procedures in paragraph (e) of this section.
  - (4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §60.112b(a)(1) or §60.113b(a)(3) and list each repair made.

Beginning October 15, 2024, all subsequent reports must be submitted in PDF format following the procedures in paragraph (e) of this section.

(b) After installing control equipment in accordance with §60.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). Prior to October 15, 2024, this report shall be an attachment to the notification required by § 60.7(a)(3). Beginning October 15, 2024, the owner or operator must submit all subsequent reports in PDF format following the procedures specified in paragraph (e) of this section. report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by § 60.113b(b)(1), furnish the Administrator with a report that contains the following information. Beginning October 15, 2024, all subsequent reports must be submitted in PDF format following the procedures in paragraph (e) of this section.

(i) The date of measurement;

(ii) The raw data obtained in the measurement; and

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement;

(ii) The raw data obtained in the measurement; and

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair. Beginning October 15, 2024, all subsequent reports must be submitted in PDF format following the procedures in paragraph (e) of this section.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1) through (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator. Beginning October 15, 2024, all subsequent reports must be submitted in PDF format following the procedures in paragraph (e) of this section.

(e) An owner or operator required to submit notifications or reports following the procedures specified in this paragraph (e) must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to the owner or operator. Do not use CEDRI to submit information the owner or operator claims as CBI. Although the EPA does not expect persons to assert a claim of CBI, if an owner or operator wishes to assert a CBI claim for some of the information in the report or notification, the owner or operator must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (e)(1) and (2) of this section. Clearly mark the part or all of the information claimed to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. The owner or operator must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (e).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov), and as described above, should include clear CBI markings, and be flagged to the attention of the NSPS Kb Lead. Owners and operators who do not have their own file sharing service and who require assistance with submitting large electronic files that exceed the file size limit for email attachments should email [oaqpscbi@epa.gov](mailto:oaqpscbi@epa.gov) to request a file transfer link.

(2) If an owner or operator cannot transmit the file electronically, the owner or operator may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and NSPS Kb Lead, Mail Drop: C404-02, 109 T.W. Alexander, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(f) Owners and operators required to electronically submit notifications or reports through CEDRI in the EPA's CDX may assert a claim of EPA system outage for failure to timely comply with the electronic submittal requirement. To assert a claim of EPA system outage, owners and operators must meet the requirements outlined in paragraphs (f)(1) through (7) of this section.

(1) The owner or operator must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) The owner or operator must submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) The owner or operator must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which the owner or operator proposes to report, or if the owner or operator has already met the reporting requirement at the time of the notification, the date the report was submitted.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(g) Owners and operators required to electronically submit notifications or reports through CEDRI in the EPA's CDX may assert a claim of force majeure for failure to timely comply with the electronic submittal requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (g)(1) through (5) of this section.

(1) An owner or operator may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) The owner or operator must submit notification to the Administrator in writing as soon as possible following the date the owner or operator first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) The owner or operator must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which the owner or operator proposes to report, or if the owner or operator has already met the reporting requirement at the time of the notification, the date the report was submitted.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

#### **§60.116b Monitoring of operations.**

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater

than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Beginning October 15, 2024, all subsequent notifications must be submitted in PDF format following the procedures specified in § 60.115b(e).

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference—see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

**§60.117b Delegation of authority.**

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii) and approval of an alternative to any electronic reporting to the EPA required by this subpart.

## Appendix H. Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations

### 1. ALTERNATIVE TEST METHOD for OPACITY DETERMINATION OF EMISSIONS from INTERMITTENT DUST-GENERATING OPERATIONS (alternative to METHOD 9)

**1.1 Applicability:** This method is applicable for the determination of opacity of fugitive dust plumes from intermittent dust-generating operations.

**1.2 Principle:** The opacity of emissions from sources of visible emissions is determined visually by a qualified observer certified according to the procedure in EPA Test Method 9.

**1.3 Procedures:** A qualified observer, shall use the following procedures for visually determining the opacity of emissions. The Commissioner may approve changes to the alternative test method, in lieu of the test method described below, based upon the criteria described in Minn. R. 7017.2050, subp. 2, items A and B.

**1.3.1** To determine the opacity of non-continuous dust plumes caused by activities including, but not limited to, bulk material loading/unloading, bulk material handling, reclaim activities, and truck traffic within a bunker:

**a. Position:** The qualified observer must stand at least 25 feet, but no more than 200 feet from the dust-generating operation in order to provide a clear view of the emissions with the sun oriented in the 140° sector to their back. Choose a discrete portion of the operation for observation, such as the unloading point, not the whole operation. As much as possible following the above requirements, make opacity observations so that the line of vision is perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**b. Initial Fallout Zone:** Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone (provide a sketch to provide scale).

**c. Field Records:** Note the following on an observational record sheet:

- (1) Location of dust-generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
- (2) Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust-generating operation, and observer's estimated distance and direction to the location of the dust-generating operation;
- (3) Time that readings begin, approximate wind direction, estimated wind-speed, description of the sky condition (presence and color of clouds);
- (4) Color of the plume and type of background; and
- (5) Sketch of Initial Fallout Zone location relative to the emission source.

**d. Observations:** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

**e. Recording Observations:** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a five-second period. Repeat observations until you have recorded at least a total of 12 consecutive opacity readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled over).

**f. Data Reduction:** Opacity is determined as the average of 12 consecutive opacity readings. Divide the observations into sets of 12 consecutive observations. In no case shall two sets overlap. For each set of



12 observations, calculate the average by summing the opacity of the 12 observations and dividing this sum by 12. If an applicable standard or requirement specifies a different averaging time, calculate the average for the observations in accordance with the specified time period. Record the average opacity on a record sheet. If the average opacity reading equals 20% or lower, the dust-generating operation is in compliance.

The existence of visible emissions only (not a specific opacity) is determined visually by an observer using EPA Test Method 22. The observer using EPA Test Method 22 is not required to be certified.

## **2. ALTERNATIVE TEST METHOD for VISUAL EMISSIONS DETERMINATION from INTERMITTENT DUST-GENERATING OPERATIONS (alternative to METHOD 22)**

**2.1 Applicability:** This method is applicable for the determination of visible emissions from fugitive dust plumes from intermittent dust-generating operations.

**2.2 Principle:** This method determines the amount of time that visible emissions occur during the observation period. This method does not require that the opacity of emissions be determined, therefore observer certification according to the procedures of EPA Method 9 is not required. However, it is necessary that the observer is knowledgeable with respect to the general procedures for determining the presence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background, contrast, ambient lighting, observer position relative to lighting, wind, and the presence on uncombined water (condensing water vapor) on the visibility of emissions. This training can be obtained from written materials found in the lecture portion of the Method 9 certification course.

### **2.3 Definitions:**

**2.3.1 Emission frequency** means the percentage of time that emissions are visible during the observation period.

**2.3.2 Emission time** means the accumulated amount of time that emissions are visible during the observation period.

**2.3.3 Observation period** means the accumulated time period during which observations are conducted, not to be less than the period specified in the applicable regulation.

**2.4 Interferences:** Occasionally, fugitive emissions from sources other than the affected facility or emission point being read (e.g., road dust) may prevent a clear view of the affected facility. This may particularly be a problem during periods of high wind. If the view of the potential emission points is obscured to such a degree that the observer questions the validity of continuing observations, then the observations shall be terminated, and the observer shall clearly note this fact on the data form.

**2.5 Procedures:** An observer shall use the following procedures for visually determining the existence of visible emissions. The Commissioner may approve changes to the alternative test method, in lieu of the test method described below, based upon the criteria described in Minn. R. 7017.2050, subp. 2, items A and B.

**2.5.1** Activities to be monitored include, but are not limited to, bulk material loading/unloading, bulk material handling, reclaim activities, and truck traffic within a bunker:

**a. Position:** Survey the affected facility, or the process to be observed, and determine the locations of potential emissions. Determine an observation location that is consistent with the requirements of the applicable regulation and/or permit requirement (e.g., outside observation of emissions escaping the building/structure, outside observation at the property line). Then select a position that enables a clear view of the emissions. The sun should be oriented in the 140° sector to the back, but at a minimum the sunlight must not be shining directly in the observer's eyes. The observer must be in a position of at least 25 feet, but not more than 200 feet, from the emission source. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

**b. Initial Fallout Zone:** Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone. The initial fallout zone is that area where the

heaviest particles drop out of the entrained fugitive dust plume. For visible emissions readings at sources with entrained fugitive dust, the initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone (a sketch is helpful to put this in perspective).

**c. Field Records:** Note the following on an observational record sheet:

- (1) Location of dust-generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
- (2) Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust-generating operation, and observer's estimated distance and direction to the location of the dust-generating operation;
- (3) Time that readings begin, approximate wind direction, estimated wind-speed, description of the sky condition (presence and color of clouds);
- (4) Color of the plume and type of background; and
- (5) Sketch of Initial Fallout Zone location relative to the emission source.

**d. Observations:** Make observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

**e. Recording Observations:** Record whether or not visible emissions were identified on an observational record sheet (Y or N). Each momentary observation recorded represents the average emissions for a five-second period. Repeat observations until you have recorded at least a total of 12 consecutive readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled over).

**f. Data Reduction:** Review the readings. If all visible emissions are identified as N (none present), the dust-generating operation is in compliance.

## **Appendix I. 40 CFR Part 60, Subpart DD—Standards of Performance for Grain Elevators**

### **§60.300 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

### **§60.301 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Grain means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(b) Grain elevator means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.

(c) Grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

(d) Permanent storage capacity means grain storage capacity which is inside a building, bin, or silo.

(e) Railcar means railroad hopper car or boxcar.

(f) Grain storage elevator means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m<sup>3</sup> (ca. 1 million bushels).

(g) Process emission means the particulate matter which is collected by a capture system.

(h) Fugitive emission means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.

(i) Capture system means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.

(j) Grain unloading station means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

(k) Grain loading station means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.

(l) Grain handling operations include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpings, cleaners, trippers, and the headhouse and other such structures.

(m) Column dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.

(n) Rack dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).

(o) Unloading leg means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

**§60.302 Standard for particulate matter.**

(a) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any:

(1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).

(2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:

(1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).

(2) Exhibits greater than 0 percent opacity.

(c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:

(1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

(2) Any grain handling operation which exhibits greater than 0 percent opacity.

(3) Any truck loading station which exhibits greater than 10 percent opacity.

(4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

(d) The owner or operator of any barge or ship unloading station shall operate as follows:

(1) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper.

(2) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft<sup>3</sup>/bu).

(3) Rather than meet the requirements of paragraphs (d)(1) and (2) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Administrator's satisfaction that they would reduce emissions of particulate matter to the same level or less.

**§60.303 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.302 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.

(2) Method 2 shall be used to determine the ventilation volumetric flow rate.

(3) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For Method 5, Method 17 may be used.

**§60.304 Modifications.**

(a) The factor 6.5 shall be used in place of “annual asset guidelines repair allowance percentage,” to determine whether a capital expenditure as defined by §60.2 has been made to an existing facility.

(b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

(1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.

(2) The installation of automatic grain weighing scales.

(3) Replacement of motor and drive units driving existing grain handling equipment.

(4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.