MINNESOTA POLLUTION CONTROL AGENCY

Draft
Air Individual Permit
Part 70 Reissuance
01300099-106

Permittee: **POET Biorefining - Lake Crystal LLC**

Facility name: **POET Biorefining - Lake Crystal LLC**
19200 499th Ave
Lake Crystal, MN 56055-4590
Blue Earth County

Expiration date: [five years from issuance]
* All Title I Conditions do not expire

Part 70 Reissuance: [Action Issue Date]

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

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. 01300099-104 and authorizes the Permittee to operate and modify 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	11/10/2021	01300099-106
Part 70 Reissuance	05/05/2023 (with supplemental information submitted on 9/11/2023, 11/28/2023, and 2/2/2024)	01300099-106
Major Amendment	05/09/2023	01300099-106
Permit Reopening	01/02/2024	01300099-106

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 – 6th 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
(for submittals related to stack testing)
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 - Lake Crystal LLC (Facility) is located at 19200 499th Ave, Lake Crystal, Blue Earth County, Minnesota.

POET Biorefining - Lake Crystal (POET Lake Crystal) is a major Part 70 source that produces fuel-grade ethanol in Lake Crystal, Minnesota. The facility is authorized to produce 90.0 million gallons of 200-proof ethanol annually, produce up to 270,000 tons per 12-month period of distillers' dried grain with solubles (DDGS), receive up to 900,000 tons per 12-month-period of grain, and receive up to 4.5 million gallons per 12-month period of denaturant (gasoline). The Part 70 operating permit contains conditions limiting criteria pollutants to less than the major source thresholds for 40 CFR § 52.21 (Prevention of Significant Deterioration), and hazardous air pollutant (HAP) emissions to less than the major source thresholds of 40 CFR § 63.2 (National Emissions Standards for HAP).

The facility receives grain feedstock to produce ethanol and co-products. Ethanol is denatured by adding gasoline condensate. Denatured or undenatured ethanol is the final product. Coproducts of ethanol production are DDGS, wetcake, corn oil, and carbon dioxide. Pollutants emitted include particulate matter (PM), PM smaller than 10 microns (PM_{10}), PM smaller than 2.5 microns ($PM_{2.5}$), volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide (SO_2), carbon monoxide (CO), HAP, and greenhouse gases (GHG) (primarily carbon dioxide). Sources of emissions from the facility include grain receiving and handling; fermentation; distillation; DDGS production, storage, and handling; natural gas combustion; product and denaturant storage and loadout; and leaks from piping connections. The primary pieces of control equipment include fabric filters to control PM emissions; a wet scrubber to control VOC and HAP emissions; and a regenerative thermal oxidizer (RTO) in series with the wet scrubber to control VOC, HAP, and CO emissions.

Particulate emissions generated from grain receiving, handling, storage, milling, and DDGS handling, storage, and loadout are aspirated to fabric filters that are used to control PM, PM_{10}, and $PM_{2.5}$ emissions from these operations.

- Grain is received within a building at the facility by hopper and straight trucks and is controlled by a certified hood that vents to a baghouse for PM control.
- DDGS storage and rail loadout occurs in the same building that grain is received in and is controlled by the same certified hood that vents to a baghouse for PM control. DDGS loadout to trucks is uncontrolled.
- Grain is transferred via enclosed elevators and conveyors and stored in day bins before being milled. These processes are aspirated to the grain handling baghouse.
- Hammermills mill the corn into fine powder and are controlled by each hammermill's milling baghouse.
- Once the grain has been milled into flour it is captured by a flour receiver that functions as PM control device.
- The flour is then conveyed to the slurry tank where the fermentation process begins.

VOC and HAP emissions are generated in the fermentation and distillation process and emitted in the DDGS drying and cooling operations. Fermentation and distillation emissions are vented to the wet scrubber and an RTO in series to control VOC and HAP emissions and DDGS cooling and drying emissions are vented to the RTO to control VOC, HAP, and CO emissions. The PM emissions are controlled prior to venting to the RTO by a baghouse for the DDGS fluid bed cooler and multicyclones for the DDGS dryers. Before being loaded out by truck or rail, denaturant is added. VOC and HAP emissions emitted during denatured and undenatured ethanol loadout to trucks is controlled by a flare. Denatured and undenatured ethanol loadout via rail is limited to cars dedicated to ethanol transportation.

- Flour is conveyed to the slurry tank where it is mixed with water and enzymes, then transferred to the yeast tank before being transferred to the fermentation tanks.

- Fermentation activities emit carbon dioxide (CO_2), VOC, and HAP emissions. VOC and HAP emissions from fermentation are controlled by the wet scrubber and RTO in series. The resulting beer from fermentation is sent to the beer well, which is also controlled by the wet scrubber and RTO in series.
- The next step, distillation, is a multi-stage process that separates the ethanol from the water and remaining solids. The ethanol passes through the 190-proof condenser and is stored in the 190-proof ethanol tank. The 190-proof ethanol is further concentrated by water-absorbing molecular sieves. The ethanol is then sent to the 200-proof condenser and then to the 200-proof ethanol tank. Some of the distillation units are vented to the wet scrubber and RTO in series.

VOC and HAP emissions are also generated from ethanol and denaturant storage, leaks, and loadout operations. The facility has ethanol storage tanks equipped with internal floating roofs as required by 40 CFR pt. 60, subp. Kb. Emissions from process valves and piping are controlled through an inspection and maintenance program that meets the requirements of 40 CFR pt. 60, subp. VVa.

Combustion sources at the facility emit VOC, HAP, PM, PM_{10}, $PM_{2.5}$, SO_2, NO_X, and CO emissions. VOC, HAP, and CO emissions produced by the DDGS Dryers are controlled by the RTO and PM emissions are controlled by multicyclones prior to venting to the RTO. Three diesel generators used in the event of a plant shutdown are controlled by their own oxidation catalyst. The two natural gas boilers vent directly to the atmosphere uncontrolled.

This permit action is Part 70 Reissuance. Included in this permit is a major amendment to increase the hours of operation of the facility's three generators (EQUI 56, 57, and 58) and a major amendment to remove the requirement to construct a combined hammermill stack (STRU 36) required by Air Permit No. 01300099-104. The Permittee is requesting these changes due to power supply issues during the summer months and condensation issues during cold weather that resulted in duct damage to combined hammermill stacks at other POET Biorefining facilities. In addition, a reopening is included in this permit action to update the short-term process throughput rates for STRU 10, STRU 14, and COMG 14.

4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 1: POET Biorefining - Lake Crystal		
ACTV 4: All IA's		
COMG 14: Hammermills	has members	EQUI 13, EQUI 14, EQUI 15, EQUI 60, EQUI 127
EQUI 1: Grain Receiving Pit #1	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 1: Grain Receiving Pit #1	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 1: Grain Receiving Pit #1	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 1: Grain Receiving Pit #1	sends to	STRU 9: Grain Handling
EQUI 1: Grain Receiving Pit #1	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 2: DDGS Rail Loadout	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 2: DDGS Rail Loadout	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 2: DDGS Rail Loadout	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 2: DDGS Rail Loadout	sends to	STRU 9: Grain Handling
EQUI 2: DDGS Rail Loadout	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 4: Grain Receiving Elevator #1	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 4: Grain Receiving Elevator #1	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 4: Grain Receiving Elevator #1	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 4: Grain Receiving Elevator #1	sends to	STRU 9: Grain Handling
EQUI 4: Grain Receiving Elevator #1	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 5: Bin Unload Conveyor #2	is monitored by	EQUI 130: Slurry FT203-1
EQUI 5: Bin Unload Conveyor #2	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 5: Bin Unload Conveyor #2	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 5: Bin Unload Conveyor #2	sends to	STRU 10: Grain Cleaning
EQUI 5: Bin Unload Conveyor #2	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 6: Grain Bin #1	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 6: Grain Bin #1	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 6: Grain Bin #1	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 6: Grain Bin #1	sends to	STRU 9: Grain Handling
EQUI 6: Grain Bin #1	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 7: Grain Bin #2	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 7: Grain Bin #2	is monitored by	EQUI 133: Outbound Truck Scale

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 7: Grain Bin #2	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 7: Grain Bin #2	sends to	STRU 9: Grain Handling
EQUI 7: Grain Bin #2	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 9: Grain Scalper	is monitored by	EQUI 130: Slurry FT203-1
EQUI 9: Grain Scalper	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 9: Grain Scalper	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 9: Grain Scalper	sends to	STRU 10: Grain Cleaning
EQUI 9: Grain Scalper	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 10: Surge Bin	is monitored by	EQUI 130: Slurry FT203-1
EQUI 10: Surge Bin	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 10: Surge Bin	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 10: Surge Bin	sends to	STRU 10: Grain Cleaning
EQUI 10: Surge Bin	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 11: Grain Elevator	is monitored by	EQUI 130: Slurry FT203-1
EQUI 11: Grain Elevator	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 11: Grain Elevator	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 11: Grain Elevator	sends to	STRU 10: Grain Cleaning
EQUI 11: Grain Elevator	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 12: Grain Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 12: Grain Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 12: Grain Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 12: Grain Conveyor	sends to	STRU 10: Grain Cleaning
EQUI 12: Grain Conveyor	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 13: Hammermill 1	is monitored by	EQUI 130: Slurry FT203-1
EQUI 13: Hammermill 1	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 13: Hammermill 1	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 13: Hammermill 1	sends to	STRU 11: Hammermill #1
EQUI 13: Hammermill 1	is controlled by	TREA 3: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 14: Hammermill 2	is monitored by	EQUI 130: Slurry FT203-1
EQUI 14: Hammermill 2	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 14: Hammermill 2	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 14: Hammermill 2	sends to	STRU 12: Hammermill #2
EQUI 14: Hammermill 2	is controlled by	TREA 4: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 15: Hammermill 3	is monitored by	EQUI 130: Slurry FT203-1

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 15: Hammermill 3	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 15: Hammermill 3	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 15: Hammermill 3	sends to	STRU 13: Hammermill #3
EQUI 15: Hammermill 3	is controlled by	TREA 5: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 16: Flour Receiver	is monitored by	EQUI 130: Slurry FT203-1
EQUI 16: Flour Receiver	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 16: Flour Receiver	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 16: Flour Receiver	sends to	STRU 14: Flour Receiver
EQUI 17: Fermentation Tank #1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 17: Fermentation Tank #1	sends to	STRU 15: RTO Bypass
EQUI 17: Fermentation Tank #1	sends to	STRU 16: RTO
EQUI 17: Fermentation Tank #1	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 17: Fermentation Tank #1	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 18: Fermentation Tank #2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 18: Fermentation Tank #2	sends to	STRU 15: RTO Bypass
EQUI 18: Fermentation Tank #2	sends to	STRU 16: RTO
EQUI 18: Fermentation Tank #2	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 18: Fermentation Tank #2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 19: Fermentation Tank #3	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 19: Fermentation Tank #3	sends to	STRU 15: RTO Bypass
EQUI 19: Fermentation Tank #3	sends to	STRU 16: RTO
EQUI 19: Fermentation Tank #3	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 19: Fermentation Tank #3	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 20: Fermentation Tank #4	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 20: Fermentation Tank #4	sends to	STRU 15: RTO Bypass
EQUI 20: Fermentation Tank #4	sends to	STRU 16: RTO
EQUI 20: Fermentation Tank #4	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 20: Fermentation Tank #4	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 21: Beerwell Tank #1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 21: Beerwell Tank #1	sends to	STRU 15: RTO Bypass
EQUI 21: Beerwell Tank #1	sends to	STRU 16: RTO
EQUI 21: Beerwell Tank #1	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 21: Beerwell Tank #1	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 22: Beerwell Tank #2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 22: Beerwell Tank #2	sends to	STRU 15: RTO Bypass
EQUI 22: Beerwell Tank #2	sends to	STRU 16: RTO

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 22: Beerwell Tank #2	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 22: Beerwell Tank #2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 26: Slurry Tank		
EQUI 27: Yeast Propogation Tank	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 27: Yeast Propogation Tank	sends to	STRU 15: RTO Bypass
EQUI 27: Yeast Propogation Tank	sends to	STRU 16: RTO
EQUI 27: Yeast Propogation Tank	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 27: Yeast Propogation Tank	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 30: 190 Proof Tank		
EQUI 31: 200 Proof Tank		
EQUI 32: Denaturant Tank		
EQUI 33: 200 Proof Ethanol Tank		
EQUI 34: 200 Proof Ethanol Tank		
EQUI 37: Beer Stripper	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 37: Beer Stripper	sends to	STRU 15: RTO Bypass
EQUI 37: Beer Stripper	sends to	STRU 16: RTO
EQUI 37: Beer Stripper	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 37: Beer Stripper	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 38: Rectifier	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 38: Rectifier	sends to	STRU 15: RTO Bypass
EQUI 38: Rectifier	sends to	STRU 16: RTO
EQUI 38: Rectifier	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 38: Rectifier	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 39: Side Stripper	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 39: Side Stripper	sends to	STRU 15: RTO Bypass
EQUI 39: Side Stripper	sends to	STRU 16: RTO
EQUI 39: Side Stripper	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 39: Side Stripper	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 40: Evaporator 1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 40: Evaporator 1	sends to	STRU 15: RTO Bypass
EQUI 40: Evaporator 1	sends to	STRU 16: RTO
EQUI 40: Evaporator 1	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 40: Evaporator 1	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 41: Molecular Sieve 1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 41: Molecular Sieve 1	sends to	STRU 15: RTO Bypass
EQUI 41: Molecular Sieve 1	sends to	STRU 16: RTO
EQUI 41: Molecular Sieve 1	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 41: Molecular Sieve 1	is controlled by	TREA 24: Regenerative Thermal Oxidizer

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 42: Centrifuge #1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 42: Centrifuge #1	sends to	STRU 16: RTO
EQUI 42: Centrifuge #1	sends to	STRU 27: Centrifuge Bypass
EQUI 42: Centrifuge #1	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 43: Centrifuge #2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 43: Centrifuge #2	sends to	STRU 16: RTO
EQUI 43: Centrifuge #2	sends to	STRU 27: Centrifuge Bypass
EQUI 43: Centrifuge #2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 44: Centrifuge #3	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 44: Centrifuge #3	sends to	STRU 16: RTO
EQUI 44: Centrifuge #3	sends to	STRU 27: Centrifuge Bypass
EQUI 44: Centrifuge #3	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 45: Centrifuge #4	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 45: Centrifuge #4	sends to	STRU 16: RTO
EQUI 45: Centrifuge #4	sends to	STRU 27: Centrifuge Bypass
EQUI 45: Centrifuge #4	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 46: Centrifuge #5	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 46: Centrifuge #5	sends to	STRU 16: RTO
EQUI 46: Centrifuge #5	sends to	STRU 27: Centrifuge Bypass
EQUI 46: Centrifuge #5	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 47: DDGS Dryer #1 with Multiclone	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 47: DDGS Dryer #1 with Multiclone	sends to	STRU 16: RTO
EQUI 47: DDGS Dryer #1 with Multiclone	sends to	STRU 21: Dryer 1 Emergency Bypass
EQUI 47: DDGS Dryer #1 with Multiclone	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 48: DDGS Dryer #2 with Multiclone	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 48: DDGS Dryer #2 with Multiclone	sends to	STRU 16: RTO
EQUI 48: DDGS Dryer #2 with Multiclone	sends to	STRU 26: Dryer 2 Emergency Bypass
EQUI 48: DDGS Dryer #2 with Multiclone	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 50: Fluid Bed Cooler	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 50: Fluid Bed Cooler	sends to	STRU 16: RTO
EQUI 50: Fluid Bed Cooler	sends to	STRU 21: Dryer 1 Emergency Bypass
EQUI 50: Fluid Bed Cooler	sends to	STRU 22: Fluid Bed Cooling

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 50: Fluid Bed Cooler	sends to	STRU 26: Dryer 2 Emergency Bypass
EQUI 50: Fluid Bed Cooler	is controlled by	TREA 11: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 51: DDGS Silo (T-849)	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 51: DDGS Silo (T-849)	sends to	STRU 17: DDGS Silo
EQUI 51: DDGS Silo (T-849)	is controlled by	TREA 12: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 52: DDGS Piling on Flat Storage		
EQUI 53: Boiler #1	sends to	STRU 19: Boiler 1
EQUI 55: Ethanol Truck Loadout	sends to	STRU 20: Flare
EQUI 55: Ethanol Truck Loadout	is controlled by	TREA 14: Flaring
EQUI 56: Diesel Generator 1	sends to	STRU 23: Diesel Generators
EQUI 56: Diesel Generator 1	is controlled by	TREA 21: Oxidation Catalyst
EQUI 57: Diesel Generator 2	sends to	STRU 23: Diesel Generators
EQUI 57: Diesel Generator 2	is controlled by	TREA 22: Oxidation Catalyst
EQUI 58: Diesel Generator 3	sends to	STRU 23: Diesel Generators
EQUI 58: Diesel Generator 3	is controlled by	TREA 23: Oxidation Catalyst
EQUI 60: Hammermill 4	is monitored by	EQUI 130: Slurry FT203-1
EQUI 60: Hammermill 4	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 60: Hammermill 4	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 60: Hammermill 4	sends to	STRU 24: Hammermill #4
EQUI 60: Hammermill 4	is controlled by	TREA 15: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 61: Boiler 2	sends to	STRU 25: Boiler 2
EQUI 62: Fermentation Tank #5	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 62: Fermentation Tank #5	sends to	STRU 15: RTO Bypass
EQUI 62: Fermentation Tank #5	sends to	STRU 16: RTO
EQUI 62: Fermentation Tank #5	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 62: Fermentation Tank #5	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 63: Grain Bin #4	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 63: Grain Bin #4	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 63: Grain Bin #4	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 63: Grain Bin #4	sends to	STRU 9: Grain Handling
EQUI 63: Grain Bin #4	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 64: Grain Bin #5	is monitored by	EQUI 132: Incoming Truck Scale

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 64: Grain Bin #5	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 64: Grain Bin #5	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 64: Grain Bin #5	sends to	STRU 9: Grain Handling
EQUI 64: Grain Bin #5	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 65: Grain Bin #6	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 65: Grain Bin #6	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 65: Grain Bin #6	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 65: Grain Bin #6	sends to	STRU 9: Grain Handling
EQUI 65: Grain Bin #6	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 66: Grain Bin #7	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 66: Grain Bin #7	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 66: Grain Bin #7	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 66: Grain Bin #7	sends to	STRU 9: Grain Handling
EQUI 66: Grain Bin #7	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 67: Belt Conveyor 2	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 67: Belt Conveyor 2	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 67: Belt Conveyor 2	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 67: Belt Conveyor 2	sends to	STRU 9: Grain Handling
EQUI 67: Belt Conveyor 2	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 68: Belt Conveyor 3	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 68: Belt Conveyor 3	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 68: Belt Conveyor 3	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 68: Belt Conveyor 3	sends to	STRU 9: Grain Handling
EQUI 68: Belt Conveyor 3	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 69: Bin Unload Conveyor #3	is monitored by	EQUI 130: Slurry FT203-1
EQUI 69: Bin Unload Conveyor #3	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 69: Bin Unload Conveyor #3	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 69: Bin Unload Conveyor #3	sends to	STRU 10: Grain Cleaning
EQUI 69: Bin Unload Conveyor #3	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 81: DDGS Truck Loadout Spout		

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 84: Grain Receiving Pit #2	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 84: Grain Receiving Pit #2	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 84: Grain Receiving Pit #2	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 84: Grain Receiving Pit #2	sends to	STRU 9: Grain Handling
EQUI 84: Grain Receiving Pit #2	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 85: Grain Receiving Elevator #2	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 85: Grain Receiving Elevator #2	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 85: Grain Receiving Elevator #2	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 85: Grain Receiving Elevator #2	sends to	STRU 9: Grain Handling
EQUI 85: Grain Receiving Elevator #2	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 86: Bin Unload Conveyor #1	is monitored by	EQUI 130: Slurry FT203-1
EQUI 86: Bin Unload Conveyor #1	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 86: Bin Unload Conveyor #1	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 86: Bin Unload Conveyor #1	sends to	STRU 10: Grain Cleaning
EQUI 86: Bin Unload Conveyor #1	is controlled by	TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 87: Mill Feed Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 87: Mill Feed Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 87: Mill Feed Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 87: Mill Feed Conveyor	sends to	STRU 11: Hammermill #1
EQUI 87: Mill Feed Conveyor	sends to	STRU 12: Hammermill #2
EQUI 87: Mill Feed Conveyor	sends to	STRU 13: Hammermill #3
EQUI 87: Mill Feed Conveyor	sends to	STRU 24: Hammermill #4
EQUI 87: Mill Feed Conveyor	sends to	STRU 44: Hammermill #5
EQUI 87: Mill Feed Conveyor	is controlled by	TREA 3: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 87: Mill Feed Conveyor	is controlled by	TREA 4: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 87: Mill Feed Conveyor	is controlled by	TREA 5: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 87: Mill Feed Conveyor	is controlled by	TREA 15: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 87: Mill Feed Conveyor	is controlled by	TREA 25: Hammermill 5 Baghouse
EQUI 88: Flour Conveyor 1	is monitored by	EQUI 130: Slurry FT203-1
EQUI 88: Flour Conveyor 1	is monitored by	EQUI 131: Pre-Blend FT209-1

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 88: Flour Conveyor 1	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 88: Flour Conveyor 1	sends to	STRU 14: Flour Receiver
EQUI 89: Flour Conveyor 2	is monitored by	EQUI 130: Slurry FT203-1
EQUI 89: Flour Conveyor 2	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 89: Flour Conveyor 2	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 89: Flour Conveyor 2	sends to	STRU 14: Flour Receiver
EQUI 90: Production Rundown Tank	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 90: Production Rundown Tank	sends to	STRU 15: RTO Bypass
EQUI 90: Production Rundown Tank	sends to	STRU 16: RTO
EQUI 90: Production Rundown Tank	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 90: Production Rundown Tank	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 91: Whole Stillage Tank	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 91: Whole Stillage Tank	sends to	STRU 15: RTO Bypass
EQUI 91: Whole Stillage Tank	sends to	STRU 16: RTO
EQUI 91: Whole Stillage Tank	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 91: Whole Stillage Tank	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 92: DDGS Reclaim Pit		
EQUI 93: DDGS Reclaim Conveyor	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 93: DDGS Reclaim Conveyor	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 93: DDGS Reclaim Conveyor	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 93: DDGS Reclaim Conveyor	sends to	STRU 9: Grain Handling
EQUI 93: DDGS Reclaim Conveyor	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 94: DDGS Elevator	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 94: DDGS Elevator	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 94: DDGS Elevator	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 94: DDGS Elevator	sends to	STRU 9: Grain Handling
EQUI 94: DDGS Elevator	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 95: Bulk Weigher	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 95: Bulk Weigher	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 95: Bulk Weigher	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 95: Bulk Weigher	sends to	STRU 9: Grain Handling
EQUI 95: Bulk Weigher	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 96: DDGS Conveyor	is monitored by	EQUI 132: Incoming Truck Scale

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 96: DDGS Conveyor	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 96: DDGS Conveyor	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 96: DDGS Conveyor	sends to	STRU 9: Grain Handling
EQUI 96: DDGS Conveyor	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 97: Loadout Conveyor	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 97: Loadout Conveyor	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 97: Loadout Conveyor	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 97: Loadout Conveyor	sends to	STRU 9: Grain Handling
EQUI 97: Loadout Conveyor	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 98: Freight Container Loading		
EQUI 101: Fluid Bed Receiver	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 101: Fluid Bed Receiver	sends to	STRU 18: Fluid Bed Receiver
EQUI 102: Fermentation Tank #6	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 102: Fermentation Tank #6	sends to	STRU 15: RTO Bypass
EQUI 102: Fermentation Tank #6	sends to	STRU 16: RTO
EQUI 102: Fermentation Tank #6	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 102: Fermentation Tank #6	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 104: Corn Oil System	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 104: Corn Oil System	sends to	STRU 16: RTO
EQUI 104: Corn Oil System	sends to	STRU 27: Centrifuge Bypass
EQUI 104: Corn Oil System	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 105: Gasoline Dispensing Nozzle		
EQUI 106: Ethanol Rail Loadout		
EQUI 107: Rail Car Venting		
EQUI 109: Belt Conveyor 1	is monitored by	EQUI 132: Incoming Truck Scale
EQUI 109: Belt Conveyor 1	is monitored by	EQUI 133: Outbound Truck Scale
EQUI 109: Belt Conveyor 1	is monitored by	EQUI 134: DDG Bulkweigher Scale
EQUI 109: Belt Conveyor 1	sends to	STRU 9: Grain Handling
EQUI 109: Belt Conveyor 1	is controlled by	TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 110: Thin Stillage Tank	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 110: Thin Stillage Tank	sends to	STRU 15: RTO Bypass
EQUI 110: Thin Stillage Tank	sends to	STRU 16: RTO
EQUI 110: Thin Stillage Tank	sends to	STRU 30: Thin Stillage Tank
EQUI 110: Thin Stillage Tank	is controlled by	TREA 7: Wet Scrubber - High Efficiency

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 110: Thin Stillage Tank	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 111: Syrup Tank	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 111: Syrup Tank	sends to	STRU 16: RTO
EQUI 111: Syrup Tank	sends to	STRU 31: Syrup Tank
EQUI 111: Syrup Tank	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 112: Mill #1 Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 112: Mill #1 Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 112: Mill #1 Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 112: Mill #1 Conveyor	sends to	STRU 11: Hammermill #1
EQUI 112: Mill #1 Conveyor	is controlled by	TREA 3: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 113: Mill #2 Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 113: Mill #2 Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 113: Mill #2 Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 113: Mill #2 Conveyor	sends to	STRU 12: Hammermill #2
EQUI 113: Mill #2 Conveyor	is controlled by	TREA 4: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 114: Mill #3 Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 114: Mill #3 Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 114: Mill #3 Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 114: Mill #3 Conveyor	sends to	STRU 13: Hammermill #3
EQUI 114: Mill #3 Conveyor	is controlled by	TREA 5: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 115: Mill #4 Conveyor	is monitored by	EQUI 130: Slurry FT203-1
EQUI 115: Mill #4 Conveyor	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 115: Mill #4 Conveyor	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 115: Mill #4 Conveyor	sends to	STRU 24: Hammermill #4
EQUI 115: Mill #4 Conveyor	is controlled by	TREA 15: Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EQUI 116: Fluid Bed Conveyor	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 116: Fluid Bed Conveyor	sends to	STRU 18: Fluid Bed Receiver
EQUI 117: DDGS Flat Storage Handling		
EQUI 118: Distillation Unit #1	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 118: Distillation Unit #1	sends to	STRU 15: RTO Bypass
EQUI 118: Distillation Unit #1	sends to	STRU 16: RTO
EQUI 118: Distillation Unit #1	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 118: Distillation Unit #1	is controlled by	TREA 24: Regenerative Thermal Oxidizer

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 119: Distillation Unit #2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 119: Distillation Unit #2	sends to	STRU 15: RTO Bypass
EQUI 119: Distillation Unit #2	sends to	STRU 16: RTO
EQUI 119: Distillation Unit #2	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 119: Distillation Unit #2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 120: Distillation Unit #3	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 120: Distillation Unit #3	sends to	STRU 15: RTO Bypass
EQUI 120: Distillation Unit #3	sends to	STRU 16: RTO
EQUI 120: Distillation Unit #3	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 120: Distillation Unit #3	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 121: Distillation Unit #4	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 121: Distillation Unit #4	sends to	STRU 15: RTO Bypass
EQUI 121: Distillation Unit #4	sends to	STRU 16: RTO
EQUI 121: Distillation Unit #4	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 121: Distillation Unit #4	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 122: Fermentation Tank #7	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 122: Fermentation Tank #7	sends to	STRU 15: RTO Bypass
EQUI 122: Fermentation Tank #7	sends to	STRU 16: RTO
EQUI 122: Fermentation Tank #7	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 122: Fermentation Tank #7	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 123: Fermentation Tank #8	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 123: Fermentation Tank #8	sends to	STRU 15: RTO Bypass
EQUI 123: Fermentation Tank #8	sends to	STRU 16: RTO
EQUI 123: Fermentation Tank #8	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 123: Fermentation Tank #8	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 125: Centrifuge #6	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 125: Centrifuge #6	sends to	STRU 16: RTO
EQUI 125: Centrifuge #6	sends to	STRU 27: Centrifuge Bypass
EQUI 125: Centrifuge #6	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 126: Flour Receiver	sends to	STRU 14: Flour Receiver
EQUI 127: Hammermill 5	is monitored by	EQUI 130: Slurry FT203-1
EQUI 127: Hammermill 5	is monitored by	EQUI 131: Pre-Blend FT209-1
EQUI 127: Hammermill 5	is monitored by	EQUI 135: Corn Bulkweigher
EQUI 127: Hammermill 5	sends to	STRU 44: Hammermill #5
EQUI 127: Hammermill 5	is controlled by	TREA 25: Hammermill 5 Baghouse

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 128: Mill #5 Conveyor	is controlled by	TREA 25: Hammermill 5 Baghouse
EQUI 129: Beer Feed FT401-1		
EQUI 130: Slurry FT203-1		
EQUI 131: Pre-Blend FT209-1		
EQUI 132: Incoming Truck Scale		
EQUI 133: Outbound Truck Scale		
EQUI 134: DDG Bulkweigher Scale		
EQUI 135: Corn Bulkweigher		
EQUI 136: DCS	receives from	EQUI 129: Beer Feed FT401-1
EQUI 136: DCS	receives from	EQUI 130: Slurry FT203-1
EQUI 136: DCS	receives from	EQUI 131: Pre-Blend FT209-1
EQUI 136: DCS	receives from	EQUI 134: DDG Bulkweigher Scale
EQUI 136: DCS	receives from	EQUI 135: Corn Bulkweigher
EQUI 137: DBC	receives from	EQUI 132: Incoming Truck Scale
EQUI 137: DBC	receives from	EQUI 133: Outbound Truck Scale
EQUI 139: Evaporator 2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 139: Evaporator 2	sends to	STRU 15: RTO Bypass
EQUI 139: Evaporator 2	sends to	STRU 16: RTO
EQUI 139: Evaporator 2	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 139: Evaporator 2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 140: Evaporator 3	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 140: Evaporator 3	sends to	STRU 15: RTO Bypass
EQUI 140: Evaporator 3	sends to	STRU 16: RTO
EQUI 140: Evaporator 3	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 140: Evaporator 3	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 141: Evaporator 4	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 141: Evaporator 4	sends to	STRU 15: RTO Bypass
EQUI 141: Evaporator 4	sends to	STRU 16: RTO
EQUI 141: Evaporator 4	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 141: Evaporator 4	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 142: Molecular Sieve 2	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 142: Molecular Sieve 2	sends to	STRU 15: RTO Bypass
EQUI 142: Molecular Sieve 2	sends to	STRU 16: RTO
EQUI 142: Molecular Sieve 2	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 142: Molecular Sieve 2	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 143: Molecular Sieve 3	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 143: Molecular Sieve 3	sends to	STRU 15: RTO Bypass

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 143: Molecular Sieve 3	sends to	STRU 16: RTO
EQUI 143: Molecular Sieve 3	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 143: Molecular Sieve 3	is controlled by	TREA 24: Regenerative Thermal Oxidizer
EQUI 144: Molecular Sieve 4	is monitored by	EQUI 129: Beer Feed FT401-1
EQUI 144: Molecular Sieve 4	sends to	STRU 15: RTO Bypass
EQUI 144: Molecular Sieve 4	sends to	STRU 16: RTO
EQUI 144: Molecular Sieve 4	is controlled by	TREA 7: Wet Scrubber - High Efficiency
EQUI 144: Molecular Sieve 4	is controlled by	TREA 24: Regenerative Thermal Oxidizer
FUGI 1: Cooling Tower		
FUGI 4: Equipment Leaks		
FUGI 6: Wet Cake		
FUGI 7: Truck Traffic		
FUGI 19: Fermenter and Beerwell Tops Leaks		
STRU 2: Grains Building		
STRU 3: Mechanical Build		
STRU 4: Process Building A		
STRU 5: Process Building B		
STRU 6: Distillation and Evaporation Building 1		
STRU 7: Distillation and Evaporation Building 2		
STRU 8: Process Office Building		
STRU 9: Grain Handling		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 10: Grain Cleaning		
STRU 11: Hammermill #1		
STRU 12: Hammermill #2		
STRU 13: Hammermill #3		
STRU 14: Flour Receiver		
STRU 15: RTO Bypass		
STRU 16: RTO		
STRU 17: DDGS Silo		
STRU 18: Fluid Bed Receiver		
STRU 19: Boiler 1		
STRU 20: Flare		
STRU 21: Dryer 1 Emergency Bypass		
STRU 22: Fluid Bed Cooling		
STRU 23: Diesel Generators		
STRU 24: Hammermill #4		
STRU 25: Boiler 2		
STRU 26: Dryer 2 Emergency Bypass		
STRU 27: Centrifuge Bypass		
STRU 30: Thin Stillage Tank		
STRU 31: Syrup Tank		
STRU 44: Hammermill #5		
TREA 1: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 2: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 3: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 4: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 5: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 7: Wet Scrubber - High Efficiency	is controlled in series by	TREA 24: Regenerative Thermal Oxidizer
TREA 11: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 12: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 14: Flaring		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 15: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		
TREA 21: Oxidation Catalyst		
TREA 22: Oxidation Catalyst		
TREA 23: Oxidation Catalyst		
TREA 24: Regenerative Thermal Oxidizer		
TREA 25: Hammermill 5 Baghouse		

5. Limits and other requirements

Requirement number	Requirement and citation
TFAC 1	**POET Biorefining - Lake Crystal**
5.1.1	This permit establishes limits on the facility to keep it a minor source under New Source Review, and the National Emission Standards for Hazardous Air Pollutants (NESHAP) program. The Permittee cannot make any change at the source that qualifies as a Title I modification (as defined at Minn. R. 7007.0100, subp. 26) or that would make the source a major source under New Source Review, or the NESHAP program 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 source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.2	The Permittee shall limit Process Throughput <= 90.000000 million gallons per year 12-month rolling sum of undenatured ethanol to 200-proof day tank 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) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.3	The Permittee shall limit Process Throughput <= 4.500000 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) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.4	The Permittee shall limit Process Throughput <= 900,000 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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.1.5	The Permittee shall limit Process Throughput <= 270,000 tons per year 12-month rolling sum of dry distiller's grains with solubles (DDGS) 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) & Minn. R. 7007.3000]
5.1.6	Grain received by the facility shall only be used for production of ethanol and co-products by the Permittee at the POET Biorefining- Lake Crystal (ID No. 01300099). Grain is defined by 40 CFR 60.301 to include corn, wheat, sorghum, rice, 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) & Minn. R. 7007.3000]
5.1.7	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)]
5.1.8	Outdoor handling and storage of grain and DDGS or MDGS is prohibited, unless the operation is described and authorized in this permit at an existing subject item. Grain received must be unloaded only in the grain-receiving building 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 shall maintain records of the moisture content of the material. The Permittee must minimize the time that MDGS remains on the wetcake pad such that it does not become a source of particulate matter emissions. [Minn. R. 7007.0800, subp. 2(A)]

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5.1.9	Denaturant received by the facility must be used solely as a denaturant of ethanol by the Permittee at POET Biorefining - Lake Crystal (ID No. 01300099), unless specifically authorized by this permit. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.10	Daily Undenatured Ethanol Production Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the undenatured ethanol production in gallons. This shall be based on flow meters of product exiting the molecular sieves. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.11	Daily Denaturant Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the denaturant throughput in gallons. 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) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.12	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. This shall be based on grain receipts. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.1.13	Daily DDGS Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the tons of DDGS loadout by the facility. 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) & Minn. R. 7007.3000]
5.1.14	Monthly Undenatured Ethanol Production Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: 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 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. 7007.0800, subps. 4-5]
5.1.15	Monthly Denaturant Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: 1) The monthly gallons of denaturant throughput during the previous month based on summing the daily denaturant loadout records for that month, and 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]
5.1.16	Monthly Grain Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: 1) The monthly tons of grain received the previous month based on summing the daily grain receipts for that month, and 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]
5.1.17	Monthly DDGS Throughput Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following:

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	1) The monthly tons of DDGS loadout during the previous month based on summing the daily DDGS loadout records for that month, and 2) The 12-month rolling sum of DDGS loadout for the previous 12-month period by summing the monthly DDGS loadout data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.1.18	Equipment Labeling: The Permittee shall permanently affix a unique number to each added, modified, or replaced emission unit, stack, or and control equipment (equipment) that has flexibility provisions for tracking purposes (See Appendix B). The numbers shall correlate the unit to the appropriate EQUI, STRU, and TREA numbers documented in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance. If equipment is added or replaced, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused. The Permittee must maintain any updates to Appendix B, including identification of facility-specific identification numbers, at the facility. The updated Appendix B must be submitted with each Annual Report. [Minn. R. 7007.0800, subp. 2(A)]
5.1.19	Equipment Inventory: The Permittee must maintain a written list of all emission units (EQUI), stacks (STRU), and control equipment (TREA) on site that have flexibility provisions. The Permittee must use the tables in Appendix B to maintain the list. Appropriate data must be entered for all data fields in Appendix B to identify and characterize emission units, control equipment, and stack parameters prior to making the change. If a facility-specific identifier is used instead of the permit identifier, the Permittee must add the facility-specific identifier to Appendix B. End dates must be entered when equipment is replaced or removed. Minn. R. 7007.1150(C) for notifications does not apply to changes made at the facility that are pre-authorized within this permit, and subject to the requirement to submit an annual equipment inventory. Identify removed equipment in the tables with equipment data struck-out. Identify modified equipment in the tables with current equipment data, and past equipment data struck. The date of construction is the date the change was made for replaced, modified, or new equipment. [Minn. R. 7007.0800, subp. 2(A)]
5.1.20	Process Flow Diagram: The Permittee must maintain an up-to-date process flow diagram of the facility. [Minn. R. 7007.0800, subp. 2(A)]
5.1.21	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices: Appendix A. Insignificant Activities and General Applicable Requirements Appendix B. Subject item Data for Flexible Permitting Appendix C. Performance Test Recordkeeping Items and Test Methods Appendix E. General Public Preclusion Plan - Boundary Map Appendix F. Fugitive Emissions Control Plan and Best Management Practices Odor Plan Appendix G. 40 CFR Part 60 Subpart A - General Provisions Appendix H. 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 Appendix I. 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 Appendix J. 40 CFR Part 63 Subpart A - General Provisions Appendix K. 40 CFR Part 63 Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines Appendix L. 40 CFR Part 63 Subpart CCCCCC - Gasoline Dispensing Facilities

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	Modeling parameters in Appendix D. Modeling Parameters are included for reference only as described elsewhere in this permit. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.1.22	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]
5.1.23	Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and recordkeeping specified in the fugitive dust control plan in Appendix F 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)]
5.1.24	The Permittee shall 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 shall 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)]
5.1.25	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]
5.1.26	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)]
5.1.27	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)]
5.1.28	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]
5.1.29	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]
5.1.30	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 EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
5.1.31	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)]

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5.1.32	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.33	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.34	Performance Test Notifications and Submittals: Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due seven days before each Performance Test Performance Test Report: due 45 days after each Performance Test 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]
5.1.35	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of 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]
5.1.36	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. 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)]
5.1.37	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)]
5.1.38	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)]
5.1.39	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)]
5.1.40	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.][For non-expiring permits, these records shall be kept for a period of five years from the date that the change was made.] 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]

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5.1.41	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. 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 the shutdown is over. [Minn. R. 7019.1000, subp. 3]
5.1.42	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. 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]
5.1.43	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]
5.1.44	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: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
5.1.45	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. 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]
5.1.46	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)]

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5.1.47	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)]
5.1.48	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]
5.1.49	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
5.1.50	Modeled Parameters for PM10 - 24-hour, PM2.5 - 24-hour, and PM2.5 - Annual: The parameters used in PM10 - 24-hour, PM2.5 - 24-hour, and PM2.5 - Annual modeling for permit number 01300099-104 are listed in Appendix D of this permit. The parameters describe the operation of the facility at maximum permitted capacity. The purpose of listing the parameters in the appendix is to provide a benchmark for future changes. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.51	Equivalent or Better Dispersion (EBD) Modeling Triggers (Modeling Not Required) for PM2.5 - 24-hour and PM2.5 - Annual: Changes that do not require a permit amendment or require an administrative permit amendment do not trigger the EBD Modeling Submittal requirement. The Permittee shall keep updated records on site of all modeled PM2.5 - 24-hour and PM2.5 - Annual parameters and emission rates listed in Appendix D. The Permittee shall submit any changes to modeled PM2.5 - 24-hour and PM2.5 - Annual parameters and emission rates with the next required modeling submittal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.52	EBD Modeling Triggers (Modeling Required) for PM2.5 - 24-hour and PM2.5 - Annual: Changes that require, or would require, a minor, moderate, or major permit amendment due to an increase in PM2.5 - 24-hour and PM2.5 - Annual emissions and affect any modeled PM2.5 - 24-hour and PM2.5 - Annual parameter or emission rate listed in Appendix D, or an addition to the information documented in Appendix D, trigger the EBD Remodeling Submittal requirement. The Permittee shall include previously made changes to modeled PM2.5 - 24-hour and PM2.5 - Annual parameters and emission rates listed in Appendix D that did not previously trigger the EBD Modeling Submittal requirement with this modeling submittal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.53	EBD Modeling at Reissuance for PM2.5 - 24-hour and PM2.5 - Annual: The Permittee shall submit an EBD Modeling Submittal with the permit reissuance application (due as stated elsewhere in this permit) that addresses any changes made during the permit term that did not require a permit amendment but that affected any modeled PM2.5 - 24-hour and PM2.5 - Annual parameter or emission rate documented in Appendix D, or an addition to the information documented in Appendix D and that did not trigger the EBD Modeling Triggers (Modeling Required) requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.54	EBD Modeling Submittal for PM2.5 - 24-hour and PM2.5 - Annual: For changes meeting the criteria in the EBD Modeling Triggers (Modeling Required) requirement, the Permittee shall submit an EBD modeling submittal in accordance with the current version of the MPCA modeling practices manual and shall wait for written approval (for major amendments, in the form of an issued permit amendment; for moderate amendments, in the form of a construction authorization letter) before making such changes. For minor amendments, written approval of the EBD modeling may be given before permit issuance; however, this approval applies only to the EBD modeling and not to any other changes. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.55	EBD Modeling Submittal Content for PM2.5 - 24-hour and PM2.5 - Annual: The information submitted must include, for stack and vent sources, source emission rate, location, height, diameters, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and dimensions of nearby buildings. For non-stack/vent sources, this includes the source

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	emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.56	Outdated EBD Baseline Modeling for PM2.5 - 24-hour and PM2.5 - Annual: Prior to conducting the EBD analysis, the Permittee shall use the current version of the MPCA modeling practices manual to determine if the Baseline Modeling (the most recent refined modeling demonstration) is outdated. If the Baseline Modeling is outdated, the Permittee shall update the Baseline Modeling to be consistent with the current version of the MPCA modeling practices manual. The updated modeling will become the new Baseline Modeling. This requirement does not require the Permittee to complete a new refined modeling demonstration using the revisions made for the EBD demonstration if the baseline modeling is not outdated. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.57	EBD Modeling Results for PM2.5 - 24-hour and PM2.5 - Annual: The dispersion characteristics due to the revisions of the information in Appendix D must be equivalent to or better than the dispersion characteristics modeled 9/8/2023. The Permittee shall demonstrate this equivalency in the proposal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.58	Computer Dispersion Modeling Triggers for PM2.5 - 24-hour and PM2.5 - Annual: The Permittee shall conduct a refined remodeling analysis in accordance with the Computer Dispersion Modeling requirements of this permit and the current version of the MPCA modeling practices manual if: (1) the results of the EBD modeling analysis do not demonstrate equivalent or better dispersion characteristics; (2) a conclusion cannot readily be made about the dispersion; (3) the criteria in the EBD Modeling Triggers requirement are met and the Permittee has previously conducted three successive EBD analyses using the same Baseline Modeling; or (4) the location of the ambient air boundary is being modified, unless the new boundary completely encompasses the original boundary documented in Appendix E. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.59	Computer Dispersion Modeling Protocol: due 180 days after receipt of written MPCA request for PM2.5 - 24-hour and PM2.5 - Annual refined modeling. The Permittee shall submit a Computer Dispersion Modeling Protocol that is complete and approvable by MPCA by the deadline in this requirement. This protocol will describe the proposed modeling methodology and input data, in accordance with the current version of the MPCA modeling practices manual. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.60	Computer Dispersion Modeling Protocol: due 60 days after receipt of written MPCA request for revisions to the submitted protocol for PM2.5 - 24-hour and PM2.5 - Annual modeling. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.61	Computer Dispersion Modeling Results: due 180 days after receipt of written MPCA approval of Computer Dispersion Modeling Protocol for PM2.5 - 24-hour and PM2.5 - Annual. The Permittee shall submit a final Computer Dispersion Modeling Report that is complete and approvable by MPCA by the deadline in this requirement. The submittal shall adhere to the current version of the MPCA modeling practices manual and the approved Computer Dispersion Modeling Protocol. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.62	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)]
5.1.63	The Permittee must unload, handle, clean, dry, and load commodities to minimize fugitive emissions to a level consistent with RACT. [Minn. R. 7011.1005, subp. 4]
5.1.64	General Public Preclusion Plan - Boundary Map

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	Within 30 days after Permit Issuance. The Permittee shall use fencing, control access points, place restriction signage, and use remote monitoring as specified in Appendix E to maintain control over the ambient air boundary. Appendix E 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 E 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) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.65	General Public Preclusion Plan The Permittee shall develop and comply with a General Public Preclusion Plan. The Permittee shall maintain a copy of the Plan at the facility, available for inspection by the Commissioner. This Plan shall, at a minimum, contain the following information: 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.); 2. Locations where fencing will be implemented; 3. Restriction signage spacing (restriction signage may include notices such as "No Trespassing, "Private Property," "Do Not Enter," or "Restricted Area"); 4. Location of remote monitoring devices; 5. Operation and maintenance requirements of remote monitoring software and devices; 6. Contingency plans for downtime for remote monitoring software and devices; and 7. A response plan for when breaches occur. [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)]
5.1.66	Recordkeeping for Breaches of the Ambient Air Boundary Within three calendar days of each observed breach, the Permittee shall 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 shall 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. 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. The Permittee shall 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) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.67	General Public Preclusion Plan - Remote Monitoring: The Permittee shall operate and maintain remote monitoring equipment to maintain the ambient air boundary as depicted in Appendix E. The Permittee shall monitor at a minimum of once per day. Remote monitoring devices include but are not limited to fixed cameras and drone mounted cameras.

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	[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)]
COMG 14	**Hammermills**
5.2.1	Combined Hammermill Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 125.40 tons per hour average of the combined 3-hour block averages of grain throughput based on bulk weigh scale prior to hammermills, as determined during the 5/23/2018 performance test, or 90.64 tons per hour average of the combined 3-hour block averages of grain throughput based on the slurry density meter when the bulk grain weigh scale is inoperable, as determined during the 5/17/2023 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [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]
5.2.2	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. The Permittee shall follow TFAC requirements for other required performance testing notifications

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	and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]
5.2.3	Combined Hammermill Short-Term Process Throughput <= 125.40 tons per hour average of the combined 3-hour block averages of grain throughput based on bulk weigh scale prior to hammermills, as determined during the 5/23/2018 performance test, or <= 90.64 tons per hour average of the combined 3-hour block averages of grain throughput based on the slurry density meter when the bulk grain weigh scale is inoperable, as determined during the 5/17/2023 performance test, 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 below. The flour rate will be measured from the flour receiver to the slurry tank based on a flour scale (tph). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.2.4	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.2.5	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM, PM10, and PM2.5 emissions as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the flour rate and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the

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	performance test results and submitted to the Commissioner with the performance test report. The Permittee shall calculate the average flour rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 11, 12, 13, 24, and 44 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 11, 12, 13, 24, or 44 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.2.6	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. The Permittee shall follow TFAC requirements for other required performance testing notifications

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	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]
5.2.7	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]
5.2.8	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 Notice of 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]
5.2.9	Opacity <= 20 percent opacity. This limit applies individually to each unit in COMG 14. [Minn. R. 7011.0715, subp. 1(B)]
5.2.10	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. This limit applies individually to each unit in COMG 14. [Minn. R. 7011.0715, subp. 1(A)]
5.2.11	The Permittee shall vent emissions from EQUI 13, 14, 15, 60, and 127 to control equipment meeting the requirements of TREA 3, 4, 5, 15, and 25 whenever EQUI 13, 14, 15, 60, and 127 operates, respectively. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-0090, 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]
EQUI 1	**Grain Receiving Pit #1**
5.3.1	The Permittee shall limit the hours of operation of Grain Receiving operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.3.2	Process Throughput <= 10,000.0 tons per day (calendar) of Grain Received. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.3.3	Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [40 CFR 60.302(c)(1), Minn. R. 7011.1005, subp. 3(A)]
5.3.4	Receiving area: Permittee shall keep at least one door to the grain receiving area closed while receiving grain. [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) & Minn. R. 7007.3000]
5.3.5	Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with reasonably available control technology. [Minn. R. 7011.1005, subp. 1(A)]
5.3.6	Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at the Grain Receiving building door at least once each day of operation while Grain is being received. 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. 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 C of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to

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	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. 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 C of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2]
5.3.7	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.3.8	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.3.9	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.2; 40 CFR 60.7(a)(4); 40 CFR.60.7(f); 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.12; and 40 CFR 60.14. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7007.1150-1500, Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.3.10	Grain Receiving Process Throughput: Daily Recordkeeping. On each day of operation, the Permittee shall record the time and date of each grain shipment received and shall calculate, record, and maintain records of the tons of grain received for the previous operating day. This shall be based on grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.3.11	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily grain receiving operation; and 2) the time and date of conclusion of the final grain receiving operation. These records shall be based on written logs and grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 2	**DDGS Rail Loadout**

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5.4.1	The Permittee shall limit the hours of operation of DDGS rail loadout operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.4.2	Process Throughput <= 1500.0 tons per day (calendar) of DDGS loadout by Rail. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.4.3	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)]
5.4.4	Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with reasonably available control technology. [Minn. R. 7011.1005, subp. 1(A)]
5.4.5	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 railcar. 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. 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 C 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. 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 C of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.4.6	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.4.7	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.4.8	DDGS Rail Loadout Process Throughput: Daily Recordkeeping. On each day of operation, the Permittee shall record the time and date of each DDGS shipment by rail and shall calculate, record, and maintain records of the tons of DDGS shipped by rail for the previous operating day. This shall be based on DDGS shipping receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]

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5.4.9	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first DDGS shipping by rail operation; and 2) the time and date of conclusion of the final DDGS shipping by rail operation. These records shall be based on written logs and DDGS shipment receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 16	**Flour Receiver**
5.5.1	The requirements below will no longer be applicable following receipt of a notification of equipment removal/dismantlement for EQUI 16. [Minn. R. 7007.0800, subp. 2(A)]
5.5.2	The Permittee must vent emissions from any emission unit that vents to STRU 14 to a fabric filter that meets the requirements of EQUI 16 whenever any emission unit that vents to STRU 14 operates, and must operate and maintain a fabric filter that meets the requirements of EQUI 16 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the fabric filter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.5.3	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.5.4	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. [Minn. R. 7011.0715, subp. 1(A)]
5.5.5	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 16 such that it achieves an outlet concentration rate for Particulate Matter <= 0.0050 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.5.6	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 16 such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.5.7	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 16 such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.5.8	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]
5.5.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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]
5.5.10	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

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	must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.5.11	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]
5.5.12	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]
5.5.13	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]
5.5.14	If the Permittee replaces or modifies a fabric filter that meets the requirements of EQUI 16, such fabric filter must comply with all requirements of EQUI 16 as well as comply with all other requirements of EQUI 16, TFAC 1, STRU 14 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 14. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.

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	5. The Permittee must document the changes to any TREA and EQUI in the tables of Appendix B, and in the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 14. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 14 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 14. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 14. The performance test may reset the short-term throughput limit at STRU 14, must confirm compliance with emission limits identified at STRU 14, and must verify that the fabric filter can achieve the outlet concentration (g/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 14 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.5.15	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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.5.16	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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) & Minn. R. 7007.3000]
5.5.17	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall

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	not be reset and the established values remain the Pressure Drop Range Limit; or - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.5.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.5.19	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 Notice of 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]
5.5.20	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) & Minn. R. 7007.3000]
5.5.21	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) & Minn. R. 7007.3000]
EQUI 26	**Slurry Tank**
5.6.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.6.2	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)]
EQUI 30	**190 Proof Tank**
5.7.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.7.2	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)]
EQUI 31	**200 Proof Tank**
5.8.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); and 40 CFR 60.12.

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	A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.8.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows: 40 CFR 60.110b(a); 40 CFR 60.111b; 40 CFR 60.112b(a); 40 CFR 60.112b(a)(1)(i); 40 CFR 60.112b(a)(1)(ii)(C); 40 CFR 60.112b(a)(1)(iii)-(ix); 40 CFR 60.113b(a)(1); 40 CFR 60.113b(a)(2); 40 CFR 60.113b(a)(4); 40 CFR 60.113b(a)(5); 40 CFR 60.115b(a)(1); 40 CFR 60.115b(a)(2); 40 CFR 60.115b(a)(3); 40 CFR 60.116b(a); and 40 CFR 60.116b(c). A copy of 40 CFR pt. 60, subp. Kb is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7011.1520(C)]
5.8.3	For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the Permittee shall 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 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)(2), Minn. R. 7011.1520(C)]
5.8.4	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)]

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5.8.5	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 Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]
EQUI 32	**Denaturant Tank**
5.9.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); and 40 CFR 60.12. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.9.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows: 40 CFR 60.110b(a); 40 CFR 60.111b; 40 CFR 60.112b(a); 40 CFR 60.112b(a)(1)(i); 40 CFR 60.112b(a)(1)(ii)(B); 40 CFR 60.112b(a)(1)(iii)-(ix); 40 CFR 60.113b(a)(1); 40 CFR 60.113b(a)(3)(ii); 40 CFR 60.113b(a)(4); 40 CFR 60.113b(a)(5); 40 CFR 60.115b(a)(1); 40 CFR 60.115b(a)(2); 40 CFR 60.115b(a)(4); 40 CFR 60.116b(a); and 40 CFR 60.116b(c). A copy of 40 CFR pt. 60, subp. Kb is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7011.1520(C)]
5.9.3	The Permittee shall equip the storage vessel (EQUI 32) with a floating roof, a vapor recovery system, or their equivalents. [Minn. R. 7011.1505, subp. 3(C)(1)]
5.9.4	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

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	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)]
5.9.5	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)]
5.9.6	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 Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]
EQUI 33	**200 Proof Ethanol Tank**
5.10.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); and 40 CFR 60.12. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.10.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows: 40 CFR 60.110b(a); 40 CFR 60.111b; 40 CFR 60.112b(a); 40 CFR 60.112b(a)(1)(i); 40 CFR 60.112b(a)(1)(ii)(C); 40 CFR 60.112b(a)(1)(iii)-(ix); 40 CFR 60.113b(a)(1); 40 CFR 60.113b(a)(2); 40 CFR 60.113b(a)(4); 40 CFR 60.113b(a)(5); 40 CFR 60.115b(a)(1); 40 CFR 60.115b(a)(2); 40 CFR 60.115b(a)(3); 40 CFR 60.116b(a); and 40 CFR 60.116b(c).

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	A copy of 40 CFR pt. 60, subp. Kb is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7011.1520(C)]
5.10.3	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 Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]
5.10.4	For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the Permittee shall 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 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)(2), Minn. R. 7011.1520(C)]
5.10.5	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)]
EQUI 34	**200 Proof Ethanol Tank**
5.11.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); and 40 CFR 60.12. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.11.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. Kb as follows: 40 CFR 60.110b(a); 40 CFR 60.111b; 40 CFR 60.112b(a); 40 CFR 60.112b(a)(1)(i);

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	40 CFR 60.112b(a)(1)(ii)(C); 40 CFR 60.112b(a)(1)(iii)-(ix); 40 CFR 60.113b(a)(1); 40 CFR 60.113b(a)(2); 40 CFR 60.113b(a)(4); 40 CFR 60.113b(a)(5); 40 CFR 60.115b(a)(1); 40 CFR 60.115b(a)(2); 40 CFR 60.115b(a)(3); 40 CFR 60.116b(a); and 40 CFR 60.116b(c). A copy of 40 CFR pt. 60, subp. Kb is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7011.1520(C)]
5.11.3	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 Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520(C)]
5.11.4	For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the Permittee shall 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 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)(2), Minn. R. 7011.1520(C)]
5.11.5	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)]
EQUI 47	**DDGS Dryer #1 with Multiclone**
5.12.1	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)]
5.12.2	Sulfur Dioxide <= 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. [Minn. R. 7011.0610, subp. 2(B)]

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5.12.3	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)]
5.12.4	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.12.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 48	**DDGS Dryer #2 with Multiclone**
5.13.1	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)]
5.13.2	Sulfur Dioxide <= 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. [Minn. R. 7011.0610, subp. 2(B)]
5.13.3	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)]
5.13.4	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.13.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 50	**Fluid Bed Cooler**
5.14.1	The Permittee must vent all emissions from EQUI 50 to a fabric filter that meets the requirements of TREA 11. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.14.2	The Permittee is authorized to vent emissions from EQUI 50 to STRU 16, 21, 22, and 26. 1. STRU 16 (RTO). There are no additional requirements necessary at STRU 16 to accommodate the operational flexibility of additional filtered inlet air. 2. STRU 21 (Dryer 1 bypass). Venting from STRU 21 is considered a deviation and must be reported. See STRU 21 requirement. 3. STRU 22 (Fabric Filter exhaust to atmosphere). See STRU 22 for lb/hr limits, testing and additional requirements. 4. STRU 26 (Dryer 2 bypass). Venting from STRU 26 is considered a deviation and must be reported. See STRU 26 requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.14.3	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.14.4	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. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 52	**DDGS Piling on Flat Storage**
5.15.1	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)]
5.15.2	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 Piling on Flat Storage is occurring. 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. If the VE readings are conducted by a certified opacity reader, the Permittee has the option of

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	immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix C 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. 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 C of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.15.3	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.15.4	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 53	**Boiler #1**
5.16.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.13; 40 CFR 60.14; and 40 CFR 60.17. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7011.0570, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.16.2	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.16.3	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]
EQUI 55	**Ethanol Truck Loadout**
5.17.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.17.2	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)]

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5.17.3	When loading ethanol to trucks, the Permittee shall vent all captured emissions to a flare meeting the requirements of TREA 14 except as described herein. The Permittee may load up to 2,200,000 gallons of ethanol in any 12-month period into non-dedicated, noncontrolled trucks. See TREA 14 for requirements for the flare. [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]
5.17.4	Daily Recordkeeping: The Permittee shall maintain a daily record of the number of gallons of ethanol loaded into non-dedicated, uncontrolled trucks. [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]
5.17.5	Monthly Recordkeeping: By the 15th day of each month, the Permittee shall calculate and record the number of gallons of ethanol loaded into non-dedicated, noncontrolled trucks for the previous month, and the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
EQUI 56	**Diesel Generator 1**
5.18.1	The Permittee shall limit emissions of Carbon Monoxide <= 23 parts per million, volumetric dry at 15 percent oxygen; or reduce CO emissions by 70 percent or more. Compliance with the numerical emission limitations established in 40 CFR pt. 63, subp. ZZZZ is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and 40 CFR pt. 63, subp. ZZZZ, Table 4. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2d)(item 3), Minn. R. 7011.8150]
5.18.2	The Permittee shall maintain Pressure Drop >= 0.83 and <= 4.83 inches of water column across the oxidation catalyst. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.18.3	Temperature >= 450 and <= 1350 degrees Fahrenheit 4-hour rolling average at the oxidation catalyst inlet. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.18.4	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.18.5	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.18.6	The Permittee shall vent emissions from EQUI 56 to control equipment meeting the requirements of TREA 21 whenever EQUI 56 operates. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.18.7	Operating Hours <= 500 hours per year 12-month rolling sum. The sum is to be calculated by the 15th day of each month. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.18.8	Daily Recordkeeping for Hours of Operation Limit: The Permittee shall record each day of operation, and the number of hours of operation using a non-resettable running time meter. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.18.9	Fuel type: Diesel only. [Minn. R. 7005.0100, subp. 35a]
5.18.10	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

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5.18.11	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.18.12	Performance Testing Recordkeeping: During each performance test the Permittee shall record and maintain the process and control parameters as detailed in Appendix C. These records shall 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]
5.18.13	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(4); 40 CFR 63.6(b)(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(2); 40 CFR 63.7(a)(3); 40 CFR 63.7(b)(1); 40 CFR 63.7(b)(2); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2); 40 CFR 63.7(e)(3); 40 CFR 63.7(e)(4); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a)(1); 40 CFR 63.8(a)(2); 40 CFR 63.8(b)(1); 40 CFR 63.8(b)(2)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(3); 40 CFR 63.8(c)(4); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(f)(6); 40 CFR 63.8(g);

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	40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(g)(1); 40 CFR 63.9(g)(3); 40 CFR 63.9(h)(1)-(6); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1) and (2)(i); 40 CFR 63.10(e)(3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix J. 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 63.6665, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-1500, Minn. R. 7011.7000, Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.18.14	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. ZZZZ, as follows: 40 CFR 63.6580; 40 CFR 63.6585(a); 40 CFR 63.6585(c); 40 CFR 63.6590(a)(1)(iii); 40 CFR 63.6595(a)(1); 40 CFR 63.6595(c); 40 CFR 63.6603(a); 40 CFR 63.6604(a); 40 CFR 63.6605(a); 40 CFR 63.6605(b); 40 CFR 63.6612; 40 CFR 63.6615; 40 CFR 63.6620(a); 40 CFR 63.6620(b);

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	40 CFR 63.6620(d); 40 CFR 63.6620(e)(1) and (2); 40 CFR 63.6625(b); 40 CFR 63.6625(g); 40 CFR 63.6625(h); 40 CFR 63.6630(a); 40 CFR 63.6630(b); 40 CFR 63.6630(c); 40 CFR 63.6635; 40 CFR 63.6640(a); 40 CFR 63.6640(b); 40 CFR 63.6640(e); 40 CFR 63.6645(a)(2); 40 CFR 63.6645(g); 40 CFR 63.6645(h)(2); 40 CFR 63.6650(a); 40 CFR 63.6650(b); 40 CFR 63.6650(c); 40 CFR 63.6650(d); 40 CFR 63.6650(e); 40 CFR 63.6650(f); 40 CFR 63.6655(a); 40 CFR 63.6655(b); 40 CFR 63.6655(d); 40 CFR 63.6660; 40 CFR 63.6665; 40 CFR 63.6670; 40 CFR 63.6675; 40 CFR pt. 63, subp. ZZZZ, Table 2b, item 2; 40 CFR pt. 63, subp. ZZZZ, Table 2d, item 3; 40 CFR pt. 63, subp. ZZZZ, Table 3, item 4; 40 CFR pt. 63, subp. ZZZZ, Table 4, items 1 & 3; 40 CFR pt. 63, subp. ZZZZ, Table 5, items 1 & 2; 40 CFR pt. 63, subp. ZZZZ, Table 6, item 10; 40 CFR pt. 63, subp. ZZZZ, Table 7, item 1; and 40 CFR pt. 63, subp. ZZZZ, Table 8. A copy of 40 CFR pt. 63, subp. ZZZZ is in Appendix K. 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. 63, subp. ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8150]
EQUI 57	**Diesel Generator 2**
5.19.1	The Permittee shall limit emissions of Carbon Monoxide <= 23 parts per million, volumetric dry at 15 percent oxygen; or reduce CO emissions by 70 percent or more. Compliance with the numerical emission limitations established in 40 CFR pt. 63, subp. ZZZZ is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and 40 CFR pt. 63, subp. ZZZZ, Table 4. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2d)(item 3), Minn. R. 7011.8150]

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5.19.2	The Permittee shall maintain Pressure Drop >= 0.33 and <= 4.33 inches of water column across the oxidation catalyst. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.19.3	Temperature >= 450 and <= 1350 degrees Fahrenheit 4-hour rolling average at the oxidation catalyst inlet. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.19.4	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.19.5	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.19.6	The Permittee shall vent emissions from EQUI 57 to control equipment meeting the requirements of TREA 22 whenever EQUI 57 operates. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.19.7	Operating Hours <= 500 hours per year 12-month rolling sum. The sum is to be calculated by the 15th day of each month. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.19.8	Daily Recordkeeping for Hours of Operation Limit: The Permittee shall record each day of operation, and the number of hours of operation using a non-resettable running time meter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.19.9	Fuel type: Diesel only. [Minn. R. 7005.0100, subp. 35a]
5.19.10	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.19.11	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.19.12	Performance Testing Recordkeeping: During each performance test the Permittee shall record and maintain the process and control parameters as detailed in Appendix C. These records shall 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]
5.19.13	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(4); 40 CFR 63.6(b)(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(2);

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	40 CFR 63.7(a)(3);
	40 CFR 63.7(b)(1);
	40 CFR 63.7(b)(2);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(e)(2);
	40 CFR 63.7(e)(3);
	40 CFR 63.7(e)(4);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(a)(1);
	40 CFR 63.8(a)(2);
	40 CFR 63.8(b)(1);
	40 CFR 63.8(b)(2)-(3);
	40 CFR 63.8(c)(1);
	40 CFR 63.8(c)(1)(ii);
	40 CFR 63.8(c)(2)-(3);
	40 CFR 63.8(c)(4);
	40 CFR 63.8(c)(6)-(8);
	40 CFR 63.8(d);
	40 CFR 63.8(e);
	40 CFR 63.8(f)(1)-(5);
	40 CFR 63.8(f)(6);
	40 CFR 63.8(g);
	40 CFR 63.9(a);
	40 CFR 63.9(b)(1)-(5);
	40 CFR 63.9(c);
	40 CFR 63.9(d);
	40 CFR 63.9(e);
	40 CFR 63.9(g)(1);
	40 CFR 63.9(g)(3);
	40 CFR 63.9(h)(1)-(6);
	40 CFR 63.9(i);
	40 CFR 63.9(j);
	40 CFR 63.10(a);
	40 CFR 63.10(b)(1);
	40 CFR 63.10(b)(2)(vi)-(xi);
	40 CFR 63.10(b)(2)(xii);
	40 CFR 63.10(b)(2)(xiii);
	40 CFR 63.10(b)(2)(xiv);
	40 CFR 63.10(b)(3);
	40 CFR 63.10(c);
	40 CFR 63.10(d)(1);
	40 CFR 63.10(d)(2);
	40 CFR 63.10(d)(4);
	40 CFR 63.10(e)(1) and (2)(i);
	40 CFR 63.10(e)(3);
	40 CFR 63.10(f);
	40 CFR 63.12;
	40 CFR 63.13;

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	40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix J. 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 63.6665, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-1500, Minn. R. 7011.7000, Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.19.14	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. ZZZZ, as follows: 40 CFR 63.6580; 40 CFR 63.6585(a); 40 CFR 63.6585(c); 40 CFR 63.6590(a)(1)(iii); 40 CFR 63.6595(a)(1); 40 CFR 63.6595(c); 40 CFR 63.6603(a); 40 CFR 63.6604(a); 40 CFR 63.6605(a); 40 CFR 63.6605(b); 40 CFR 63.6612; 40 CFR 63.6615; 40 CFR 63.6620(a); 40 CFR 63.6620(b); 40 CFR 63.6620(d); 40 CFR 63.6620(e)(1) and (2); 40 CFR 63.6625(b); 40 CFR 63.6625(g); 40 CFR 63.6625(h); 40 CFR 63.6630(a); 40 CFR 63.6630(b); 40 CFR 63.6630(c); 40 CFR 63.6635; 40 CFR 63.6640(a); 40 CFR 63.6640(b); 40 CFR 63.6640(e); 40 CFR 63.6645(a)(2); 40 CFR 63.6645(g); 40 CFR 63.6645(h)(2); 40 CFR 63.6650(a); 40 CFR 63.6650(b); 40 CFR 63.6650(c); 40 CFR 63.6650(d); 40 CFR 63.6650(e); 40 CFR 63.6650(f); 40 CFR 63.6655(a); 40 CFR 63.6655(b); 40 CFR 63.6655(d); 40 CFR 63.6660; 40 CFR 63.6665;

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	40 CFR 63.6670; 40 CFR 63.6675; 40 CFR pt. 63, subp. ZZZZ, Table 2b, item 2; 40 CFR pt. 63, subp. ZZZZ, Table 2d, item 3; 40 CFR pt. 63, subp. ZZZZ, Table 3, item 4; 40 CFR pt. 63, subp. ZZZZ, Table 4, items 1 & 3; 40 CFR pt. 63, subp. ZZZZ, Table 5, items 1 & 2; 40 CFR pt. 63, subp. ZZZZ, Table 6, item 10; 40 CFR pt. 63, subp. ZZZZ, Table 7, item 1; and 40 CFR pt. 63, subp. ZZZZ, Table 8. A copy of 40 CFR pt. 63, subp. ZZZZ is in Appendix K. 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. 63, subp. ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8150]
EQUI 58	**Diesel Generator 3**
5.20.1	The Permittee shall limit emissions of Carbon Monoxide <= 23 parts per million, volumetric dry at 15 percent oxygen; or reduce CO emissions by 70 percent or more. Compliance with the numerical emission limitations established in 40 CFR pt. 63, subp. ZZZZ is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and 40 CFR pt. 63, subp. ZZZZ, Table 4. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2d)(item 3), Minn. R. 7011.8150]
5.20.2	The Permittee shall maintain Pressure Drop >= 0.0 and <= 4.0 inches of water column across the oxidation catalyst. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.20.3	Temperature >= 450 and <= 1350 degrees Fahrenheit 4-hour rolling average at the oxidation catalyst inlet. [40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR pt. 63, subp. ZZZZ(Table 2b)(item 2), Minn. R. 7011.8150]
5.20.4	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.20.5	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.20.6	The Permittee shall vent emissions from EQUI 58 to control equipment meeting the requirements of TREA 23 whenever EQUI 58 operates. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.20.7	Operating Hours <= 500 hours per year 12-month rolling sum. The sum is to be calculated by the 15th day of each month. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.20.8	Daily Recordkeeping for Hours of Operation Limit: The Permittee shall record each day of operation, and the number of hours of operation using a non-resettable running time meter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.20.9	Fuel type: Diesel only. [Minn. R. 7005.0100, subp. 35a]
5.20.10	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

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5.20.11	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.20.12	Performance Testing Recordkeeping: During each performance test the Permittee shall record and maintain the process and control parameters as detailed in Appendix C. These records shall 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]
5.20.13	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(4); 40 CFR 63.6(b)(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(2); 40 CFR 63.7(a)(3); 40 CFR 63.7(b)(1); 40 CFR 63.7(b)(2); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2); 40 CFR 63.7(e)(3); 40 CFR 63.7(e)(4); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a)(1); 40 CFR 63.8(a)(2); 40 CFR 63.8(b)(1); 40 CFR 63.8(b)(2)-(3); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(3); 40 CFR 63.8(c)(4); 40 CFR 63.8(c)(6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(f)(6); 40 CFR 63.8(g);

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	40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(g)(1); 40 CFR 63.9(g)(3); 40 CFR 63.9(h)(1)-(6); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1) and (2)(i); 40 CFR 63.10(e)(3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix J. 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 63.6665, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-1500, Minn. R. 7011.7000, Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.20.14	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. ZZZZ, as follows: 40 CFR 63.6580; 40 CFR 63.6585(a); 40 CFR 63.6585(c); 40 CFR 63.6590(a)(1)(iii); 40 CFR 63.6595(a)(1); 40 CFR 63.6595(c); 40 CFR 63.6603(a); 40 CFR 63.6604(a); 40 CFR 63.6605(a); 40 CFR 63.6605(b); 40 CFR 63.6612; 40 CFR 63.6615; 40 CFR 63.6620(a); 40 CFR 63.6620(b);

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	40 CFR 63.6620(d); 40 CFR 63.6620(e)(1) and (2); 40 CFR 63.6625(b); 40 CFR 63.6625(g); 40 CFR 63.6625(h); 40 CFR 63.6630(a); 40 CFR 63.6630(b); 40 CFR 63.6630(c); 40 CFR 63.6635; 40 CFR 63.6640(a); 40 CFR 63.6640(b); 40 CFR 63.6640(e); 40 CFR 63.6645(a)(2); 40 CFR 63.6645(g); 40 CFR 63.6645(h)(2); 40 CFR 63.6650(a); 40 CFR 63.6650(b); 40 CFR 63.6650(c); 40 CFR 63.6650(d); 40 CFR 63.6650(e); 40 CFR 63.6650(f); 40 CFR 63.6655(a); 40 CFR 63.6655(b); 40 CFR 63.6655(d); 40 CFR 63.6660; 40 CFR 63.6665; 40 CFR 63.6670; 40 CFR 63.6675; 40 CFR pt. 63, subp. ZZZZ, Table 2b, item 2; 40 CFR pt. 63, subp. ZZZZ, Table 2d, item 3; 40 CFR pt. 63, subp. ZZZZ, Table 3, item 4; 40 CFR pt. 63, subp. ZZZZ, Table 4, items 1 & 3; 40 CFR pt. 63, subp. ZZZZ, Table 5, items 1 & 2; 40 CFR pt. 63, subp. ZZZZ, Table 6, item 10; 40 CFR pt. 63, subp. ZZZZ, Table 7, item 1; and 40 CFR pt. 63, subp. ZZZZ, Table 8. A copy of 40 CFR pt. 63, subp. ZZZZ is in Appendix K. 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. 63, subp. ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8150]
EQUI 61	**Boiler 2**
5.21.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.13; 40 CFR 60.14; and

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	40 CFR 60.17. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7011.0570, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.21.2	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35(a)]
5.21.3	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]
EQUI 81	**DDGS Truck Loadout Spout**
5.22.1	Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with reasonably available control technology. [Minn. R. 7011.1005, subp. 1(A)]
5.22.2	Opacity <= 10 percent opacity from DDGS loading station. [Minn. R. 7011.1005, subp. 3(B)]
5.22.3	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. 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. If visible emissions are observed from loadout operations, the Permittee must take corrective actions to eliminate visible emissions as soon as possible and report a deviation. As an alternative, the Permittee may determine the opacity from the emission source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix C of this permit using a certified observer, as soon as practicable, but no later than 24 hours after observing visible emissions. If the opacity results are less than the permit requirement, 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]
5.22.4	The Permittee shall limit the hours of operation of DDGS Truck Loadout Spout operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.22.5	Process Throughput <= 1500.0 tons per day (calendar) of DDGS loadout by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.22.6	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.22.7	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

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	wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity results are less than the permit requirement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.22.8	DDGS Truck Loadout Spout Process Throughput: Daily Recordkeeping. On each day of operation, the Permittee shall record the time and date of each DDGS shipment by truck and shall calculate, record, and maintain records of the tons of DDGS shipped by truck for the previous operating day. This shall be based on DDGS shipping receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.22.9	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily DDGS shipping by truck operation; and 2) the time and date of conclusion of the final daily DDGS shipping by truck operation. These records shall be based on written logs and DDGS shipment receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 84	**Grain Receiving Pit #2**
5.23.1	The Permittee shall limit the hours of operation of Grain Receiving operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.23.2	Process Throughput <= 10,000.0 tons per day (calendar) of Grain Received. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.23.3	Opacity <= 5 percent opacity from truck unloading stations, railcar unloading stations, railcar loading stations, and handling operation fugitive emissions. [40 CFR 60.302(c)(1), Minn. R. 7011.1005, subp. 3(A)]
5.23.4	Receiving area: Permittee shall keep at least one door to the grain receiving area closed while receiving grain. [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]
5.23.5	Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with reasonably available control technology. [Minn. R. 7011.1005, subp. 1(A)]
5.23.6	Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at the Grain Receiving building door at least once each day of operation while Grain is being received. 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. 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 C 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. 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

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	Intermittent Dust-Generating Operations found in Appendix C of this permit using a certified observer. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.23.7	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.23.8	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.23.9	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.2; 40 CFR 60.7(a)(4); 40 CFR.60.7(f); 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.12; and 40 CFR 60.14. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7007.1150-1500, Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.23.10	Grain Receiving Process Throughput: Daily Recordkeeping. On each day of operation, the Permittee shall record the time and date of each grain shipment received and shall calculate, record, and maintain records of the tons of grain received for the previous operating day. This shall be based on grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.23.11	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily grain receiving operation; and 2) the time and date of conclusion of the final grain receiving operation. These records shall be based on written logs and grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 88	**Flour Conveyor 1**
5.24.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.24.2	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)]
EQUI 89	**Flour Conveyor 2**
5.25.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

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5.25.2	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)]
EQUI 92	**DDGS Reclaim Pit**
5.26.1	The Permittee shall limit the hours of operation of DDGS Reclaim Pit operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.26.2	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)]
5.26.3	Visible Emissions: The Permittee shall conduct visible emissions (VE) readings at the overhead DDGS building door at least once each day of operation while the DDGS reclaim pit is in operation. 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 freight containers. If visible emissions are observed from loadout operations, the Permittee must take corrective actions to eliminate visible emissions as soon as possible and report a deviation. As an alternative, the Permittee may determine the opacity from the emission source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix C of this permit using a certified observer, as soon as practicable, but no later than 24 hours after observing visible emissions. If the opacity results are less than the permit requirement, 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)]
5.26.4	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.26.5	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. Identification of visible emissions is a deviation and must be reported unless opacity results are less than the permit requirement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.26.6	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily DDGS reclaim pit operation; and 2) the time and date of conclusion of the final daily DDGS reclaim pit operation. These records shall be based on written logs and DDGS shipment receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 98	**Freight Container Loading**
5.27.1	Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with reasonably available control technology. [Minn. R. 7011.1005, subp. 1(A)]

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5.27.2	Opacity <= 10 percent opacity from DDGS loading station. [Minn. R. 7011.1005, subp. 3(B)]
5.27.3	The Permittee shall limit the hours of operation of Freight Container Loading operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.27.4	Process Throughput <= 1500.0 tons per day (calendar) of DDGS loadout by Freight Container. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.27.5	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 freight containers. 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 freight containers. If visible emissions are observed from loadout operations, the Permittee must take corrective actions to eliminate visible emissions as soon as possible and report a deviation. As an alternative, the Permittee may determine the opacity from the emission source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix C of this permit using a certified observer, as soon as practicable, but no later than 24 hours after observing visible emissions. If the opacity results are less than the permit requirement, 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)]
5.27.6	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.27.7	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. Identification of visible emissions is a deviation and must be reported unless opacity results are less than the permit requirement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.27.8	DDGS Freight Container Loadout Process Throughput: Daily Recordkeeping. On each day of operation, the Permittee shall record the time and date of each DDGS shipment by freight container and shall calculate, record, and maintain records of the tons of DDGS shipped by freight container for the previous operating day. This shall be based on DDGS shipping receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.27.9	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily DDGS shipping by freight container operation; and 2) the time and date of conclusion of the final daily DDGS shipping by freight container operation. These records shall be based on written logs and DDGS shipment receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]

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EQUI 101	**Fluid Bed Receiver**
5.28.1	The Permittee must vent emissions from any emission unit that vents to STRU 18 to a fabric filter that meets the requirements of EQUI 101 whenever any emission unit that vents to STRU 18 operates, and must operate and maintain a fabric filter that meets the requirements of EQUI 101 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the fabric filter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.28.2	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 101 such that it achieves an outlet concentration rate for Particulate Matter <= 0.0050 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.28.3	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 101 such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.28.4	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 101 such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.28.5	The permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 101 such that it achieves a collection efficiency for Particulate Matter >= 80 percent collection efficiency for the fabric filter. [Minn. R. 7011.1005, subp. 3(E)]
5.28.6	The Permittee shall maintain the air pollution fabric filter in proper operating condition and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]
5.28.7	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]
5.28.8	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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]
5.28.9	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]
5.28.10	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]

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5.28.11	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]
5.28.12	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]
5.28.13	If the Permittee replaces or modifies a fabric filter that meets the requirements of EQUI 101, such fabric filter must meet the requirements of EQUI 101 as well as comply with all other requirements of EQUI 101, TFAC 1, STRU 18 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 18. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. 5. The Permittee must document the changes to any TREA and EQUI in the tables of Appendix B, and in the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 18. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 18 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 18.

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	8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 18. The performance test may reset the short-term throughput limit at STRU 18, must confirm compliance with emission limits identified at STRU 18, and must verify that the fabric filter can achieve the outlet concentration (g/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 18 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.28.14	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. 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 permit. [Minn. R. 7007.0800, subp. 2]
5.28.15	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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) & Minn. R. 7007.3000]
5.28.16	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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.

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	The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.28.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.28.18	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 Notice of 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]
5.28.19	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) & Minn. R. 7007.3000]
5.28.20	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) & Minn. R. 7007.3000]
5.28.21	Visible Emissions: Once each week of operation, the Permittee shall conduct visible emissions (VE) readings at the fabric filter stack. 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 visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.28.22	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 105	**Gasoline Dispensing Nozzle**
5.29.1	Process Throughput < 10,000 gallons per month of gasoline for onsite vehicle use. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.29.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.29.3	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)]
5.29.4	Daily Gasoline Dispensing Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain records of the gallons of gasoline dispensed at the facility for the previous calendar day. This shall be based on fuel 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, Title I Condition: Avoid major source under 40 CFR 63.2]

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5.29.5	Monthly Gasoline Dispensing Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the monthly gallons of gasoline dispensed during the previous month based on summing the daily records of fuel dispensed in gallons for that month. [Minn. R. 7007.0800, subps. 4-5]
5.29.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. CCCCCC, as follows: 40 CFR 63.11111(a)-(b); 40 CFR 63.11111(e); 40 CFR 63.11111(h)-(i); 40 CFR 63.11112(a) 40 CFR 63.11112(d); 40 CFR 63.11113(b); 40 CFR 63.11115(a)-(b); 40 CFR 63.11116(a)-(c); 40 CFR 63.11130; 40 CFR 63.11131(a); 40 CFR 63.11132; and 40 CFR pt. 63, subp. CCCCCC, Table 3. A copy of 40 CFR pt. 63, subp. CCCCCC is included in Appendix L. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 63, subp. CCCCCC, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7185]
5.29.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1); 40 CFR 63.1(b)(3); 40 CFR 63.1(c)(1)-(2); 40 CFR 63.1(c)(5)-(6); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b); 40 CFR 63.5(d)-(f); 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1); 40 CFR 63.6(e)(3); 40 CFR 63.9(b)(1)-(2); 40 CFR 63.9(b)(4)-(5); 40 CFR 63.9(c)-(d); 40 CFR 63.9(h)(1)-(3); 40 CFR 63.9(h)(5)-(6);

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	40 CFR 63.9(i)-(k); 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i)-(v); 40 CFR 63.10(b)(2)(xii)-(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(4)- (5); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix J. 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. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
EQUI 106	**Ethanol Rail Loadout**
5.30.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.30.2	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)]
5.30.3	All rail cars must be dedicated fleet (carry only ethanol). No loadout controls are required for dedicated fleet rail cars. To be considered dedicated, the rail cars must be placarded as ethanol transportation cars. [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]
EQUI 107	**Rail Car Venting**
5.31.1	The Permittee must limit Rail Car Venting to <= 15 rail cars per calendar month to be calculated by the 15th day of each month for the previous calendar month 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]
5.31.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.31.3	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)]
5.31.4	Rail Car Venting: Daily Recordkeeping. For each day of operation, the Permittee shall record and maintain a record of the total rail cars vented. This shall be recorded in written usage 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, Title I Condition: Avoid major source under 40 CFR 63.2]
5.31.5	Rail Car Venting: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the total rail cars vented for EQUI 107 for the previous calendar month using the daily records. [Minn. R. 7007.0800, subps. 4-5]

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EQUI 110	**Thin Stillage Tank**
5.32.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.32.2	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)]
EQUI 111	**Syrup Tank**
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)]
EQUI 117	**DDGS Flat Storage Handling**
5.34.1	The Permittee shall limit the hours of operation of DDGS Flat Storage Handling operations each day to the hours of 5 AM to 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.34.2	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)]
5.34.3	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 flat storage handling is occurring. 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 freight containers. If visible emissions are observed from loadout operations, the Permittee must take corrective actions to eliminate visible emissions as soon as possible and report a deviation. As an alternative, the Permittee may determine the opacity from the emission source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix C of this permit using a certified observer, as soon as practicable, but no later than 24 hours after observing visible emissions. If the opacity results are less than the permit requirement, 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)]
5.34.4	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) 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)]
5.34.5	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. Identification of visible emissions is a deviation and must be reported unless opacity results are less than the permit requirement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.34.6	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record: 1) the time and date of commencement of the first daily DDGS flat storage handling operation; and

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	2) the time and date of conclusion of the final daily DDGS flat storage handling operation. These records shall be based on written logs. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
EQUI 122	**Fermentation Tank #7**
5.35.1	The Permittee is authorized to construct and operate EQUI 122, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct was granted by Air Emissions Permit No. 01300099-104. The authorization to construct expires 6/30/2025. 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]
EQUI 123	**Fermentation Tank #8**
5.36.1	The Permittee is authorized to construct and operate EQUI 123, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct was granted by Air Emissions Permit No. 01300099-104. The authorization to construct expires 6/30/2025. 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]
EQUI 125	**Centrifuge #6**
5.37.1	The Permittee is authorized to construct and operate EQUI 125, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct was granted by Air Emissions Permit No. 01300099-104. The authorization to construct expires 6/30/2025. 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]
EQUI 126	**Flour Receiver**
5.38.1	The Permittee is authorized to construct and operate EQUI 126, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct was granted by Air Emissions Permit No. 01300099-104. The authorization to construct expires 6/30/2025. 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]
5.38.2	The Permittee must vent emissions from any emission unit that vents to STRU 14 to a fabric filter that meets the requirements of EQUI 126 whenever any emission unit that vents to STRU 14 operates, and must operate and maintain a fabric filter that meets the requirements of EQUI 126 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) & Minn. R. 7007.3000]
5.38.3	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.38.4	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. [Minn. R. 7011.0715, subp. 1(A)]
5.38.5	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 126 such that it achieves an outlet concentration rate for Particulate Matter <= 0.0030 grains per dry

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	standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.38.6	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 126 such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0030 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) & Minn. R. 7007.3000]
5.38.7	The Permittee shall operate and maintain any fabric filter that meets the requirements of EQUI 126 such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0030 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) & Minn. R. 7007.3000]
5.38.8	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]
5.38.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.38.10	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. 7007.0800, subp. 4]
5.38.11	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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.38.12	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]
5.38.13	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]
5.38.14	If the Permittee replaces or modifies a fabric filter that meets the requirements of EQUI 126, such fabric filter must comply with all requirements of EQUI 126 as well as comply with all other requirements of EQUI 126, TFAC 1, STRU 14 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.

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	Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 14. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. 5. The Permittee must document the changes to any TREA and EQUI in the tables of Appendix B, and in the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 14. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 14 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 14. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 14. The performance test may reset the short-term throughput limit at STRU 14, must confirm compliance with emission limits identified at STRU 14, and must verify that the fabric filter can achieve the outlet concentration (g/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 14 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.38.15	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

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	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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.38.16	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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) & Minn. R. 7007.3000]
5.38.17	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.38.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.38.19	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 Notice of 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]

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5.38.20	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) & Minn. R. 7007.3000]
5.38.21	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) & Minn. R. 7007.3000]
EQUI 127	**Hammermill 5**
5.39.1	The Permittee is authorized to construct and operate EQUI 127, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 01300099-104. 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]
EQUI 128	**Mill #5 Conveyor**
5.40.1	The Permittee is authorized to construct and operate EQUI 128, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 01300099-104. 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]
FUGI 1	**Cooling Tower**
5.41.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.41.2	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)]
FUGI 4	**Equipment Leaks**
5.42.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.1(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a); 40 CFR 60.5(b); 40 CFR 60.6(a); 40 CFR 60.6(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3); 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.8(a); 40 CFR 60.8(b); 40 CFR 60.8(c); 40 CFR 60.8(d);

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	40 CFR 60.8(e); 40 CFR 60.8(f); 40 CFR 60.8(g); 40 CFR 60.8(h); 40 CFR 60.8(i); 40 CFR 60.9; 40 CFR 60.11(d); 40 CFR 60.11(f); 40 CFR 60.11(g); 40 CFR 60.12; 40 CFR 60.14(a); 40 CFR 60.14(b); 40 CFR 60.14(c); 40 CFR 60.14(e); 40 CFR 60.14(f); 40 CFR 60.14(g); 40 CFR 60.15(a); 40 CFR 60.15(b); 40 CFR 60.15(c); 40 CFR 60.15(d); 40 CFR 60.15(e); 40 CFR 60.15(f); 40 CFR 60.15(g); 40 CFR 60.17; 40 CFR 60.18(g)-(i); 40 CFR 60.19(a); 40 CFR 60.19(b); 40 CFR 60.19(c); 40 CFR 60.19(d); 40 CFR 60.19(e); 40 CFR 60.19(f)(1); 40 CFR 60.19(f)(2); 40 CFR 60.19(f)(3); and 40 CFR 60.19(f)(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.42.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. VVa as follows: 40 CFR 60.480a(a)-(b); 40 CFR 60.481a; 40 CFR 60.482-1a(a); 40 CFR 60.482-1a(b); 40 CFR 60.482-1a(e); 40 CFR 60.482-1a(f); 40 CFR 60.482-1a(g); 40 CFR 60.482-2a;

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	40 CFR 60.482-3a; 40 CFR 60.482-4a; 40 CFR 60.482-5a; 40 CFR 60.482-6a; 40 CFR 60.482-7a; 40 CFR 60.482-8a; 40 CFR 60.482-9a; 40 CFR 60.482-10a; 40 CFR 60.482-11a; 40 CFR 60.483-1a; 40 CFR 60.483-2a; 40 CFR 60.484a(a); 40 CFR 60.484a(b); 40 CFR 60.484a(c); 40 CFR 60.485a; 40 CFR 60.486a(a)(1); 40 CFR 60.486a(a)(3); 40 CFR 60.486a(b)-(k); 40 CFR 60.487a(a)-(e); and 40 CFR 60.489a. A copy of 40 CFR pt. 60, subp. VVa is included in Appendix I. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7011.2900(D)]
5.42.3	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 >= 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)]
5.42.4	Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency for Volatile Organic Compounds >= 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)]
FUGI 6	**Wet Cake**
5.43.1	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)]
FUGI 7	**Truck Traffic**
5.44.1	Truck Traffic <= 97 trucks per day of denatured ethanol, corn oil, and carbon dioxide shipping by truck, and chemical delivery by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.44.2	Truck Traffic <= 465 trucks per day of grain receiving and DDGS loadout by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.44.3	Operating Hours: The Permittee shall limit the hours of operation of grain receiving by truck and DDGS loadout by truck to 16 hours per day from 5 AM - 9 PM. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]

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5.44.4	Silt Content: less than or equal to 1.10 grams per square meter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.44.5	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]
5.44.6	Abide by Fugitive Dust Control Plan in Appendix F of this permit. [Minn. R. 7011.0150]
5.44.7	Daily Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of grain receiving delivery trucks entering the facility and DDGS loadout trucks exiting the facility. This shall be based on written records. [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)]
5.44.8	Daily Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of denatured ethanol, corn oil, and carbon dioxide production trucks leaving the facility and chemical delivery trucks entering the facility. This shall be based on written records. [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)]
5.44.9	Operating Hours: Daily Recordkeeping. On each day of operation, the Permittee shall record and maintain records on site of: 1) the time of day the first DDGS loadout truck enters the facility; 2) the time of the day the first grain receiving truck enters the facility; 3) the time of day the last DDGS truck exits the facility; and 4) the time of day the last grain receiving truck exits the facility. These records shall be based on written logs. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
FUGI 19	**Fermenter and Beerwell Tops Leaks**
5.45.1	For the purposes of FUGI 19, the listed terms shall have the following specific definitions. Equipment - each component on top of all fermenters and the beer well, including pressure relief and/or vacuum breaker valves, agitators, access doors (i.e., manways), and connectors. First attempt at repair - to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices. Process unit - Each individual fermenter and the beer well and the components assembled and connected by pipes or ducts that make up these units. Process unit shutdown - 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.

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	3) The use of spare equipment and technically feasible bypassing of equipment without stopping production. Quarter - a 3-month period; the first quarter concludes on the last day of the last full month during the 90 days following permit issuance. Repaired - equipment is adjusted or otherwise altered, in order to eliminate a leak as defined in FUGI 19 and is re-monitored as specified in FUGI 19 to verify that emissions from the equipment are below the applicable leak definition. [Minn. R. 7007.0800, subp. 2(A)]
5.45.2	The Permittee shall maintain a Master Component List at the facility that contains the following information for each component: 1) Current monitoring frequency; 2) Type of component (pressure relief valve, vacuum breaker valve, valve, agitator, access door, or connector); 3) Equipment description and ID (e.g., EQUI 33 - Fermenter) of associated equipment; 4) Unit identification for the component; 5) Date the component was added; and 6) Date the component was removed. 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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.3	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: 1) Pressure relief valves; 2) Vacuum breaker valves; 3) Valves; 4) Agitators; 5) Access doors (i.e., manways); and 6) Connectors. 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, it must be given a new unique label; labels from replaced or removed components must not be reused. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.45.4	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 19 of this permit. Any valve 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 valve 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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.5	Connectors, Agitators, Access doors, and Pressure relief/vacuum breaker valve - The Permittee shall conduct quarterly monitoring for each Connector, Agitator, Access door, and Pressure relief/vacuum breaker valve in the Master Component List to detect leaks using the Methods and leak definitions specified in FUGI 19 of this permit. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]

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5.45.6	Quarterly monitoring events must be separated by at least 30 calendar days. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.7	During monitoring events, the Permittee shall ensure the following: 1) Components are not isolated from the combined fermenter and beer well gas header system; and 2) The fermenters and beer well are operated under normal operating conditions as defined in this permit. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7007.0800, subp. 4, Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.8	Leak Definition for Pressure Relief/Vacuum Breaker Valves: The Permittee shall maintain and operate all pressure relief valves and/or 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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.9	Leak Definition for Agitators, Access Doors, Connectors, and Valves: The Permittee shall maintain and operate all agitators with an instrument reading of less than 10,000 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.10	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. The following calibration gases shall be used: 1) Zero air (less than 10 ppm of hydrocarbon in air); and 2) A mixture of methane or n-hexane and air at concentrations of about, but less than, 10,000 ppm methane or n-hexane. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.11	For no detectable emission monitoring events in FUGI 19, the Permittee shall use Method 21 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), Minn. R. 7017.2010, A]
5.45.12	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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.13	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 19 of this permit, the term "equipment" used in 40 CFR 60.482-9 shall have the meaning specified in FUGI 19 of this permit. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.14	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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.15	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; 5) Ensuring that the seal flush is operating at design pressure and temperature. [Minn. R. 7007.0800, subp. 2(A)]

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5.45.16	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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.17	Anytime a pressure relief 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 19 of this permit, the term "equipment" used in 40 CFR 60.482-9 shall have the meaning specified in FUGI 19 of this permit. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.18	The Permittee shall conduct monitoring within 5 calendar days after a pressure release 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(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.45.19	The Permittee shall record and maintain the following records for the Fermenter and Beer Well Program: 1) The date and reason for each monitoring event; 2) The background level measured during each monitoring; 3) The maximum instrument reading measured at each component during each monitoring event, including repair verification - monitoring done following each repair attempt; 4) The date the leak was detected and the dates of each attempt to repair the leak; 5) Repair methods applied in each attempt to repair the leak; 6) 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; 7) 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; 8) Instrument calibration logs and response time determinations per Method 21; 9) The dates of process unit shutdowns; and 10) The date of successful repair of the leak. These records shall be kept on-site for a minimum of 5 years. [Minn. R. 7007.0800, subp. 2(B), Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 9	**Grain Handling**
5.46.1	The Permittee must vent emissions from all emission units that vent to STRU 9 to a fabric filter that meets the requirements of TREA 1, whenever any emission unit that vents to STRU 9 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 1 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) & Minn. R. 7007.3000]
5.46.2	The Permittee shall limit emissions of Particulate Matter <= 0.60 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.3	The Permittee shall limit emissions of Particulate Matter <= 0.01 grains per dry standard cubic foot. [40 CFR 60.302(b)(1), Minn. R. 7011.1005, subp. 2]
5.46.4	The Permittee shall limit emissions of PM < 10 micron <= 0.60 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) & Minn. R. 7007.3000]

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5.46.5	The Permittee shall limit emissions of PM < 2.5 micron <= 0.60 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) & Minn. R. 7007.3000]
5.46.6	Opacity <= 0 percent opacity. [40 CFR 60.302(b)(2), Minn. R. 7011.1005, subp. 2]
5.46.7	Notwithstanding any provisions in Minn. R. 7011.1000 to 7011.1015, no Permittee of a dry bulk agricultural commodity facility may operate or maintain a facility that creates a public nuisance. If the commissioner determines that operation or maintenance of a commodity facility creates a public nuisance, the commissioner may require the Permittee to take measures necessary to eliminate the nuisance. [Minn. R. 7011.1010]
5.46.8	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 9, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 9, as well as those listed at the total facility (TFAC 1), and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 9, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 1 at all times that any of the equipment is being operated. 2. Any increase in short-term process throughput rates beyond that authorized in the "Process Throughput" requirement at STRU 9, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement at STRU 9 up to the maximum value allowable in the requirement, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 9 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit, and 5. In accordance with 40 CFR 60.304, the Permittee may not increase the hourly grain handling capacity without triggering a modification under the NSPS. This includes changes made using the flexibility provisions contained within this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.9	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 752.53 tons per hour 3-hour block average of grain received based on grain receipts as determined during the 6/12/2016 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.46.10	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn.

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	R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 225 tons per hour 3-hour block average of DDGS loaded based on the DDGS bulkweigher as determined during the 6/12/2016 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [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]
5.46.11	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.46.12	Short-term Process Throughput <= 752.53 tons per hour 3-hour block average of grain received based on grain receipts as determined during the 6/12/2016 performance test, 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 below. The grain receiving rate will be based on grain receipts (tph). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process

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	throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record continuous records to comply with the short-term limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form DRF-2. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.13	Short-term Process Throughput <= 225 tons per hour 3-hour block average of DDGS loaded based on the DDGS bulkweigher as determined during the 6/12/2016 performance test, 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 below. The grain receiving rate will be based on grain receipts (tph). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record continuous records to comply with the short-term limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form DRF-2. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.14	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the grain receiving and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average Grain Receiving for each individual compliant test run.

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	Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 9 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 9 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.46.15	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.16	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. The Permittee must conduct the performance test on the date specified in the Performance Test

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	Notification. If the test is not conducted within 90 days of the test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.46.17	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]
5.46.18	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 Notice of 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]
5.46.19	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. 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)]
5.46.20	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
5.46.21	The Permittee shall determine compliance with the particulate matter standards in 40 CFR 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 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.303(b), Minn. R. 7011.1005, subp. 2]
5.46.22	The Permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.303(b): 1. Method 5, Method 17. [40 CFR 60.303(c)(1), Minn. R. 7011.1005, subp. 2]
5.46.23	The Permittee shall use the factor 6.5 in place of "annual asset guidelines repair allowance percentage," to determine whether a capital expenditure as defined by 40 CFR 60.2 has been made to an existing facility. [40 CFR 60.303(c)(1), Minn. R. 7011.1005, subp. 2]
5.46.24	The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

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	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. [40 CFR 60.304(b), Minn. R. 7011.1005, subp. 2]
5.46.25	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.2; 40 CFR 60.7(a)(4); 40 CFR.60.7(f); 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.12; and 40 CFR 60.14. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7007.1150-1500, Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
STRU 10	**Grain Cleaning**
5.47.1	The Permittee must vent emissions from all emission units that vent to STRU 10 to a fabric filter that meets the requirements of TREA 2, whenever any emission unit that vents to STRU 10 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 2 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) & Minn. R. 7007.3000]
5.47.2	The Permittee shall limit emissions of Particulate Matter <= 0.110 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.3	The Permittee shall limit emissions of Particulate Matter <= 0.01 grains per dry standard cubic foot. [40 CFR 60.302(b)(1), Minn. R. 7011.1005, subp. 2]
5.47.4	The permittee shall limit emissions of PM < 10 micron <= 0.110 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) & Minn. R. 7007.3000]
5.47.5	The Permittee shall limit emissions of PM < 2.5 micron <= 0.110 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) & Minn. R. 7007.3000]
5.47.6	Opacity <= 0 percent opacity. [40 CFR 60.302(b)(2), Minn. R. 7011.1005, subp. 2]
5.47.7	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 10, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 10, as well as those listed at the total facility (TFAC 1), and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 10, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 2 at all times that any of the equipment is being

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	operated. 2. Any increase in short-term process throughput rates beyond that authorized in the "Process Throughput" requirement at STRU 10, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement at STRU 10 up to the maximum value allowable in the requirement, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 10, and 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.8	Notwithstanding any provisions in Minn. R. 7011.1000 to 7011.1015, no Permittee of a dry bulk agricultural commodity facility may operate or maintain a facility that creates a public nuisance. If the commissioner determines that operation or maintenance of a commodity facility creates a public nuisance, the commissioner may require the Permittee to take measures necessary to eliminate the nuisance. [Minn. R. 7011.1010]
5.47.9	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 86.57 tons per hour 3-hour block average of grain throughput based on the slurry density meter, as determined during the 5/17/2023 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.47.10	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. The Permittee must conduct the performance test on the date specified in the Performance Test

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	Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.47.11	Short-term Process Throughput <= 86.57 tons per hour 3-hour block average of grain throughput based on the slurry density meter, as determined during the 5/17/2023 performance test, 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 below. The grain receiving rate will be based on grain receipts (tph). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record continuous records to comply with the short-term limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form DRF-2. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.12	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.13	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded

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	during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the grain receiving and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average Grain Receiving for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 10 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 10 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.47.14	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the process throughput limit and re-set control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted process throughput limit and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 limit during the higher process throughput time period must be reported as a

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	deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.47.15	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]
5.47.16	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 Notice of 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]
5.47.17	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. 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)]
5.47.18	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
5.47.19	The Permittee shall determine compliance with the particulate matter standards in 40 CFR 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 40 CFR 60.11 shall be used to determine opacity. [40 CFR 60.303(b), Minn. R. 7011.1005, subp. 2]
5.47.20	The Permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.303(b): 1. Method 5, Method 17. [40 CFR 60.303(c)(1), Minn. R. 7011.1005, subp. 2]
5.47.21	The Permittee shall use the factor 6.5 in place of "annual asset guidelines repair allowance percentage," to determine whether a capital expenditure as defined by 40 CFR 60.2 has been made to an existing facility. [40 CFR 60.304(a), Minn. R. 7011.1005, subp. 2]
5.47.22	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.

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	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. [40 CFR 60.304(b), Minn. R. 7011.1005, subp. 2]
5.47.23	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.2; 40 CFR 60.7(a)(4); 40 CFR.60.7(f); 40 CFR 60.8; 40 CFR 60.11; 40 CFR 60.12; and 40 CFR 60.14. A copy of 40 CFR pt. 60, subp. A is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 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. 7007.1150-1500, Minn. R. 7011.1005, subp. 2, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
STRU 11	**Hammermill #1**
5.48.1	The Permittee must vent emissions from all emission units venting to STRU 11 to a fabric filter that meets the requirements of TREA 3 whenever any emission unit venting to STRU 11 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 3 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) & Minn. R. 7007.3000]
5.48.2	The Permittee shall limit emissions of Particulate Matter <= 0.120 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]
5.48.3	The Permittee shall limit emissions of PM < 10 micron <= 0.120 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]
5.48.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.120 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]
5.48.5	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 11, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 11, as well as those listed at the total facility (TFAC 1), COMG 14, and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 11, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 3 at all times that any of the equipment is being operated, 2. Any increase in short-term process throughput rates must be authorized in the "Process Throughput" requirement in COMG 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in COMG 14,

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	3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 11, and 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.48.6	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. 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)]
5.48.7	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 12	**Hammermill #2**
5.49.1	The Permittee must vent emissions from all emission units venting to STRU 12 to a fabric filter that meets the requirements of TREA 4 whenever any emission unit venting to STRU 12 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 4 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) & Minn. R. 7007.3000]
5.49.2	The Permittee shall limit emissions of Particulate Matter <= 0.120 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]
5.49.3	The Permittee shall limit emissions of PM < 10 micron <= 0.120 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]
5.49.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.120 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]
5.49.5	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 12, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 12, as well as those listed at the total facility (TFAC 1), COMG 14, and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 12, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 4 at all times that any of the equipment is being operated, 2. Any increase in short-term process throughput rates must be authorized in the "Process Throughput" requirement in COMG 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in COMG 14, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 12, and

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	4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.6	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. 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)]
5.49.7	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 13	**Hammermill #3**
5.50.1	The Permittee must vent emissions from all emission units venting to STRU 13 to a fabric filter that meets the requirements of TREA 5 whenever any emission unit venting to STRU 13 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 5 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) & Minn. R. 7007.3000]
5.50.2	The Permittee shall limit emissions of Particulate Matter <= 0.120 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]
5.50.3	The Permittee shall limit emissions of PM < 10 micron <= 0.120 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]
5.50.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.120 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]
5.50.5	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 13, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 13, as well as those listed at the total facility (TFAC 1), COMG 14, and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 13, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 5 at all times that any of the equipment is being operated, 2. Any increase in short-term process throughput rates must be authorized in the "Process Throughput" requirement in COMG 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in COMG 14, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 13, and

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	4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.6	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. 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)]
5.50.7	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 14	**Flour Receiver**
5.51.1	The Permittee must vent emissions from all emission units venting to STRU 14 to a flour receiver that meets the requirements of EQUI 16 or EQUI 126 whenever any emission unit venting to STRU 14 operates and must operate and maintain a flour receiver that meets the requirements of EQUI 16 or EQUI 126 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) & Minn. R. 7007.3000]
5.51.2	The Permittee shall limit emissions of Particulate Matter <= 0.1840 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.3	The Permittee shall limit emissions of PM < 10 micron <= 0.1840 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) & Minn. R. 7007.3000]
5.51.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.1840 pounds per hour 3-hour block 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) & Minn. R. 7007.3000]
5.51.5	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 14, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 14, as well as those listed at the total facility (TFAC 1), and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 14, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of EQUI 16 at all times that any of the equipment is being operated. 2. Any increase in short-term process throughput rates beyond that authorized in the "Process Throughput" requirement at STRU 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement at STRU 14 up to the maximum value allowable in the requirement, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 14, and 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve

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	100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. 5. The Permittee must document the changes to any TREA and EQUI in the tables of Appendix B, and in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.6	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 88.77 tons per hour 3-hour block average of grain throughput based on the slurry density meter, as determined by the 5/17/2023 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.51.7	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. The Permittee shall follow TFAC requirements for other required performance testing notifications

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	and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.51.8	Short-term Process Throughput <= 88.77 tons per hour 3-hour block average of grain throughput based on the slurry density meter, as determined by the 5/17/2023 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.9	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.10	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the grain receiving and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The

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	Permittee shall calculate the average Grain Receiving for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 14 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 14 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.51.11	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 the test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]

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5.51.12	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]
5.51.13	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 Notice of 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]
5.51.14	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. 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)]
5.51.15	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 15	**RTO Bypass**
5.52.1	When the Permittee vents emissions to STRU 15, the Permittee must vent emissions from all emission units that vent to STRU 15 to a scrubber that meets the requirements of TREA 7 whenever any emission unit that vents to STRU 15 operates, and must operate and maintain a scrubber that meets the requirements of TREA 7 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) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.2	Emissions from the thin stillage tank as described in Appendix B of this permit or as certified in the Annual Report are authorized by this permit to vent to STRU 15 (indirect), STRU 16 (indirect), and STRU 30 (direct). See EQUI 110 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11]
5.52.3	The Permittee shall limit Operating Hours <= 500 hours per year 12-month rolling sum of bypassing the regenerative thermal oxidizer and sending emissions to STRU 15. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.4	The Permittee shall limit emissions of Volatile Organic Compounds <= 32.46 pounds per hour 3-hour average as measured on a total mass of VOC basis. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.52.5	The Permittee shall limit STRU 15 HAPs - Total <= 1.21 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to the total HAP emissions from all associated subject items venting to STRU 15. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.6	The Permittee shall limit STRU 15 HAP - Acetaldehyde <= 1.09 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acetaldehyde emissions from all associated subject items venting to STRU 15. [Title I Condition: Avoid major source under 40 CFR 63.2]

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5.52.7	The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde >= 4.37 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 15. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.8	The Permittee shall use an outlet (controlled) emission factor for Acrolein >= 0.426 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 15. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.9	The Permittee shall use an outlet (controlled) emission factor for Formaldehyde >= 0.0161 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 15. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.10	The Permittee shall use an outlet (controlled) emission factor for Methanol >= 0.0244 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 15. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.11	Opacity <= 20 percent opacity This limit applies individually to each unit venting to STRU 15. [Minn. R. 7011.0715, subp. 1(B)]
5.52.12	The Permittee shall limit 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 unit venting to STRU 15. [Minn. R. 7011.0715, subp. 1(A)]
5.52.13	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 15, such equipment is subject to all of the requirements of STRU 15, as well as those listed at the total facility (TFAC 1), and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 15, as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a scrubber that meets the requirements of TREA 7 at all times that any of the equipment vents to STRU 15. This includes requirements for minimum control efficiency identified in TREA 7, 2. Any increase in short-term process throughput rates beyond that authorized in the "Short-term Process Throughput" limit in STRU 15, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in STRU 15, and 3. Emissions of VOC as mass must remain below the lb/hr limits specified in STRU 15. 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.14	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.

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	The Maximum Achievable Process Rate is 849.90 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 5/23/2018 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [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]
5.52.15	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.52.16	Short-term Process Throughput <= 849.90 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 5/23/2018 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts,

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	and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.17	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3 , Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.18	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure VOC as mass emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the beer feed and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average Grain Receiving for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 15 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the

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	test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 15 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.52.19	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.52.20	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]
5.52.21	Protocol for Resetting HAP Emission Factors (concurrent with VOC testing): This Protocol must be used when testing for HAP emission factors is conducted concurrently with VOC as mass testing. The Permittee shall conduct performance testing to measure individual HAP emission factors as required elsewhere in this permit, concurrent with testing for VOC as mass. If a HAP emission factor is to be reset, the reset of the emission factor shall be reset to the 3-hour average emission rate in lb/hr, based on the values recorded during the most recent MPCA-approved emission factor performance test that was conducted with performance testing for VOC as mass. During each performance test, the Permittee must continuously monitor the short-term throughput limits and any other process and control parameters detailed in Appendix C. A print-out of the records

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	from the DAS must be included with the performance test results and submitted to the Commissioner with the performance test report. Downtime of 15 minutes or more is not to be included as operating time. The new HAP emission factors shall be effective upon receipt of the Notice of Compliance (NOC)/Notice of Test Verification (NOTV) letter that approves the test results and shall be incorporated into the permit during the next permit amendment. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.22	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from any Protocol for Resetting HAP Emission Factors established by this permit. [Minn. R. 7007.1500, subp. 1]
5.52.23	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 Notice of 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]
5.52.24	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. 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)]
5.52.25	The Permittee shall submit itemized potential to emit calculations for each emission unit venting to STRU 15 with their next permit application. [Minn. R. 7007.0500, subp. 2(C)(4)]
5.52.26	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
5.52.27	Daily Recordkeeping: On each day of operation, the Permittee shall record and maintain the Hours of Operation and date for any emissions venting to STRU 15. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.52.28	Monthly Hours of Operation Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: 1) The monthly Hours of Operation of any emissions venting to STRU 15 during the previous month based on summing the daily Hours of Operation records for that month, and 2) The 12-month rolling sum Hours of Operation for the previous 12-month period by summing the Hours of Operation data for the previous 12 months. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.52.29	Monthly Calculation of Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record the monthly single HAP emissions for acetaldehyde, acrolein, formaldehyde, and methanol emissions from STRU 15 during the previous calendar month using Equation 1 below. [Minn. R. 7007.0800, subps. 4-5]
5.52.30	Equation 1. Single monthly HAP emissions calculations based on emission factors and hours of operation:

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	Hp = ((A1 x B1) + (A2 x B2) + ...etc)/2000 where: Hp = Single acetaldehyde, acrolein, methanol, and formaldehyde emissions; tons/month A# = STRU 15 hours of operation during the previous month when emissions were vented to STRU 15 through applicable controls and all applicable control equipment operating parameters were within the required indicator ranges; hrs/month B# = Outlet HAP emission factor; lb/hr as identified above. [Minn. R. 7007.0800, subps. 4-5]
5.52.31	Monthly Calculation and Recordkeeping - STRU 15 Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record the STRU 15 HAP - Single emissions individually for acetaldehyde for the previous 12-month period by: 1. Summing the results of the individual single HAP emissions from the previous month from Equation 1 to get acetaldehyde HAP emissions for the month (tons/month); 2. Summing the monthly single HAP emissions data individually for STRU 15 HAP - Acetaldehyde emissions for the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
5.52.32	Monthly Calculation and Recordkeeping - STRU 15 HAP - Total Emissions: By the 15th of each month, the Permittee shall calculate and record the STRU 15 HAP - Total emissions for the previous 12-month period by: 1. Summing the results of the individual HAP emissions for acetaldehyde, acrolein, formaldehyde, and methanol the previous month from Equation 1 to get HAP - Total emissions for the month (tons/month) 2. Summing the monthly emissions data for STRU 15 HAP - Total emissions for the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
STRU 16	**RTO**
5.53.1	STRU 16 AOS #1 - Normal Operation: The Permittee must vent emissions from all emissions units that vent to a scrubber that meets the requirements of TREA 7 to TREA 24 (RTO), whenever any emission unit that vents to a scrubber operates, except as otherwise authorized by this permit and must operate and maintain a scrubber and RTO in series that meets the requirements of TREA 7 and TREA 24 at all times that any emissions vent to a scrubber. [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: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.2	STRU 16 AOS #2 - Scrubber Bypass: The Permittee must vent emissions from all emission units that vent to STRU 16 to TREA 24 whenever any emission unit that vents to STRU 16 operates, except as otherwise authorized by this permit and must operate and maintain TREA 24 at all times that any emissions vent to it. [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: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.3	RTO Bypass: The Permittee is authorized to bypass the RTO and vent emissions to STRU 15 for up to 500 hours per year. See STRU 15 for applicable limits and requirements. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]

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5.53.4	Emissions from the thin stillage tank as described in Appendix B of this permit or as certified in the Annual Report are authorized by this permit to vent to STRU 16 (indirect), STRU 15 (indirect) and STRU 30 (direct). See EQUI 110 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11]
5.53.5	Emissions from the syrup tank as described in Appendix B of this permit or as certified in the Annual Report are authorized by this permit to vent to STRU 15 (indirect), STRU 16 (indirect) and STRU 31 (direct). See EQUI 111 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11]
5.53.6	Emissions from centrifuges as described in Appendix B of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 16 (indirect) or STRU 27 (direct). See STRU 27 for applicable limits, recordkeeping and reporting requirements. [Minn. R. 7007.0800, subp. 11]
5.53.7	Emissions from the corn oil system as described in Appendix B of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 16 or STRU 27 under limited conditions. See STRU 27 for applicable limits, recordkeeping and reporting requirements. [Minn. R. 7007.0800, subp. 11]
5.53.8	The Permittee shall limit emissions of Nitrogen Oxides <= 10.66 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]
5.53.9	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit emissions of Particulate Matter <= 9.89 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.10	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit emissions of PM < 10 micron <= 9.89 pounds per hour 3-hour average. [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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.11	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit emissions of PM < 2.5 micron <= 9.89 pounds per hour 3-hour average. [Minn. R. 7005.0100, subp. 35a, 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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.12	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit emissions of Carbon Monoxide <= 7.81 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.13	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit emissions of Volatile Organic Compounds <= 11.95 pounds per hour 3-hour average on the basis of total mass of VOC. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.14	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit STRU 16 HAPs - Total <= 8.38 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to the total HAP emissions from all associated subject items venting to STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.15	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit STRU 16 HAP - Acetaldehyde <= 3.84 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acetaldehyde emissions from all associated subject items venting to STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.16	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit STRU 16 HAP - Acrolein <= 2.56 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acrolein emissions from all associated

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	subject items venting to STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.17	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit STRU 16 HAP - Formaldehyde <= 1.10 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to formaldehyde emissions from all associated subject items venting to STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.18	STRU 16 AOS #1 - Normal Operation: The Permittee shall limit STRU 16 HAP - Methanol <= 0.876 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to methanol emissions from all associated subject items venting to STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.19	STRU 16 AOS #1 - Normal Operation: The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde >= 0.877 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.20	STRU 16 AOS #1 - Normal Operation: The Permittee shall use an outlet (controlled) emission factor for Acrolein >= 0.584 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.21	STRU 16 AOS #1 - Normal Operation: The Permittee shall use an outlet (controlled) emission factor for Formaldehyde >= 0.252 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.22	STRU 16 AOS #1 - Normal Operation: The Permittee shall use an outlet (controlled) emission factor for Methanol >= 0.20 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #1. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.23	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit Operating Hours <= 150 hours per year 12-month rolling sum of bypassing the scrubber and sending emissions directly to a RTO meeting the permit requirements for TREA 24, and STRU 16. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.24	STRU 16 AOS #2 - Scrubber Bypass: Permittee shall limit emissions of Particulate Matter <= 14.76 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.25	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit emissions of PM < 10 micron <= 14.76 pounds per hour 3-hour average. [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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.53.26	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit emissions of PM < 2.5 micron <= 14.76 pounds per hour 3-hour average. [Minn. R. 7005.0100, subp. 35a, 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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

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5.53.27	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit emissions of Volatile Organic Compounds <= 33.36 pounds per hour 3-hour average as measured on a total mass of VOC basis while bypassing the wet scrubber. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.53.28	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit emissions of Carbon Monoxide <= 5.63 pounds per hour 3-hour average while bypassing the wet scrubber. [Minn. R. 7005.0100, subp. 35a, Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.53.29	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit STRU 16 HAPs - Total <= 0.150 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to the total HAP emissions from all associated subject items venting to STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.30	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit STRU 16 HAP - Acetaldehyde <= 0.0259 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acetaldehyde emissions from all associated subject items venting to STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.31	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit STRU 16 HAP - Acrolein <= 0.0900 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acrolein emissions from all associated subject items venting to STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.32	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit STRU 16 HAP - Formaldehyde <= 0.0179 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to formaldehyde emissions from all associated subject items venting to STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.33	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall limit STRU 16 HAP - Methanol <= 0.0228 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to methanol emissions from all associated subject items venting to STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.34	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde >= 0.345 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.35	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall use an outlet (controlled) emission factor for Acrolein >= 1.20 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.36	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall use an outlet (controlled) emission factor for Formaldehyde >= 0.238 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]

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5.53.37	STRU 16 AOS #2 - Scrubber Bypass: The Permittee shall use an outlet (controlled) emission factor for Methanol >= 0.304 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). The emission factor is to be used in the calculations for STRU 16 under AOS #2. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.38	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 16, such equipment is subject to all of the requirements of STRU 16, as well as those listed at the total facility (TFAC 1), and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 16, as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a RTO that meets the requirements of TREA 24 at all times that any of the equipment vents to STRU 16. This includes requirements for minimum control efficiency identified in TREA 24, 2. Any increase in short-term process throughput rates beyond that authorized in the "Short-term Process Throughput" limit in STRU 16, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in STRU 16, 3. The Permittee may not use the flexibility provisions of this permit to replace, add, or modify any dryer (or dryer with multi-clones). The appropriate permit amendment must be submitted, and 4. Emissions of VOC as mass, PM, PM10, PM2.5, NOx, and CO must remain below the lb/hr limits specified in STRU 16. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn.R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.39	STRU 16 AOS #1 - Normal Operation: Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The STRU 16 AOS #1 - Normal Operation Maximum Achievable Process Rate is 851.80 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 5/23/2018 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Minn. R. 7007.0800, subp. 11, 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]
5.53.40	STRU 16 AOS #2 - Scrubber Bypass: Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The STRU 16 AOS #2 - Scrubber Bypass Maximum Achievable Process Rate is 864.3 gallons per minute

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	3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Minn. R. 7007.0800, subp. 11, 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]
5.53.41	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.53.42	STRU 16 AOS #1 - Normal Operation: Short-term Process Throughput <= 851.80 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 5/23/2018 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition

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	limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.43	STRU 16 AOS #2 - Scrubber Bypass: Short-term Process Throughput <= 864.3 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.44	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]

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5.53.45	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure VOC as mass, PM, PM10, PM2.5, NOx, and CO emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the beer feed and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average Grain Receiving for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 16 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 16 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.53.46	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.

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	4. 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 limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.53.47	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. 7017.1500, subp. 1]
5.53.48	Protocol for Resetting HAP Emission Factors (concurrent with VOC testing): This Protocol must be used when testing for HAP emission factors is conducted concurrently with VOC as mass testing. The Permittee shall conduct performance testing to measure individual HAP emission factors as required elsewhere in this permit, concurrent with testing for VOC as mass. If a HAP emission factor is to be reset, the reset of the emission factor shall be reset to the 3-hour average emission rate in lb/hr, based on the values recorded during the most recent MPCA-approved emission factor performance test that was conducted with performance testing for VOC as mass. During each performance test, the Permittee must continuously monitor the short-term throughput limits and any other process and control parameters detailed in Appendix C. A print-out of the records from the DAS must be included with the performance test results and submitted to the Commissioner with the performance test report. Downtime of 15 minutes or more is not to be included as operating time. The new HAP emission factors shall be effective upon receipt of the Notice of Compliance (NOC)/Notice of Test Verification (NOTV) letter that approves the test results and shall be incorporated into the permit during the next permit amendment. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]
5.53.49	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from any Protocol for Resetting HAP Emission Factors established by this permit. [Minn. R. 7007.1500, subp. 1]
5.53.50	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 Notice of 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]
5.53.51	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. 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)]

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5.53.52	The Permittee shall submit itemized potential to emit calculations for each emission unit venting to STRU 16 with their next permit application. [Minn. R. 7007.0500, subp. 2(C)(4)]
5.53.53	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
5.53.54	STRU 16 AOS #1 - Normal Operation: Daily Recordkeeping: On each day of operation, the Permittee shall record and maintain the time and date of operations using AOS #1, in hours. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.55	STRU 16 AOS #1 - Normal Operation: Monthly Hours of Operation Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the monthly Hours of Operation during the previous month based on summing the daily Hours of Operation records for that month. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.56	STRU 16 AOS #2 - Scrubber Bypass: Daily Recordkeeping: On each day of operation, the Permittee shall record and maintain the time and date of operations using AOS #2, in hours. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.57	STRU 16 AOS #2 - Scrubber Bypass: Monthly Hours of Operation Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: 1) The monthly Hours of Operation during the previous month based on summing the daily Hours of Operation records for that month, and 2) The 12-month rolling sum Hours of Operation for the previous 12-month period by summing the Hours of Operation data for the previous 12 months. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.58	Opacity <= 20 percent opacity. This limit applies individually to each unit venting to STRU 16. [Minn. R. 7011.0715, subp. 1(B)]
5.53.59	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 unit venting to STRU 16. [Minn. R. 7011.0715, subp. 1(A)]
5.53.60	Monthly Calculation of Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record the monthly single HAP emissions for acetaldehyde, acrolein, formaldehyde, and methanol emissions from STRU 16 AOS #1 and the monthly single HAP emissions for acetaldehyde, acrolein, formaldehyde, and methanol emissions from STRU 16 AOS #2 during the previous calendar month using Equation 1 below. [Minn. R. 7007.0800, subps. 4-5]
5.53.61	Equation 1. Single monthly HAP emissions calculations based on emission factors and hours of operation for each operating scenario: Hp = ((A1 x B1) + (A2 x B2) + ...etc)/2000 where: Hp = Single acetaldehyde, acrolein, methanol, and formaldehyde emissions; tons/month A# = STRU 16 AOS #1 or STRU 16 AOS #2 hours of operation during the previous month when emissions were vented to STRU 16 through applicable controls and all applicable control equipment operating parameters were within the required indicator ranges; hrs/month B# = Outlet HAP emission factor; lb/hr as identified above. [Minn. R. 7007.0800, subps. 4-5]

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5.53.62	Monthly Calculation and Recordkeeping - STRU 16 Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record the STRU 16 AOS #1 and STRU 16 AOS #2 HAP - Single emissions individually for acetaldehyde, acrolein, formaldehyde, and methanol for each operating scenario for the previous 12-month period by: 1. Summing the results of the individual single HAP emissions from the previous month from Equation 1 for each operating scenario to get acetaldehyde, acrolein, formaldehyde, and methanol HAP emissions for the month (tons/month); 2. Summing the monthly single HAP emissions data individually for STRU 16 AOS #1 HAP - Acetaldehyde, STRU 16 AOS #1 HAP - Acrolein, STRU 16 AOS #1 HAP - Formaldehyde, STRU 16 AOS #1 HAP - Methanol, STRU 16 AOS #2 HAP - Acetaldehyde, STRU 16 AOS #2 HAP - Acrolein, STRU 16 AOS #2 HAP - Formaldehyde, STRU 16 AOS #2 HAP - Methanol emissions for the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
5.53.63	Monthly Calculation and Recordkeeping - STRU 16 HAP - Total Emissions: By the 15th of each month, the Permittee shall calculate and record the STRU 16 AOS #1 HAP - Total emissions and STRU 16 AOS #2 HAP - Total emissions for the previous 12-month period by: 1. Summing the results of the individual HAP emissions for acetaldehyde, acrolein, formaldehyde, and methanol the previous month from Equation 1 for each operating scenario to get HAP - Total emissions for the month (tons/month) 2. Summing the monthly emissions data for STRU 16 AOS #1 HAP - Total and STRU 16 AOS #2 HAP - Total emissions for the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
STRU 17	**DDGS Silo**
5.54.1	The Permittee must vent emissions from all emission units venting to STRU 17 to a fabric filter that meets the requirements of TREA 12 whenever any emission unit venting to STRU 17 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 12 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) & Minn. R. 7007.3000]
5.54.2	The Permittee shall limit emissions of Particulate Matter <= 0.210 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.54.3	The Permittee shall limit emissions of PM < 10 micron <= 0.210 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) & Minn. R. 7007.3000]
5.54.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.210 pounds per hour 3-hour block 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) & Minn. R. 7007.3000]
5.54.5	Opacity <= 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.54.6	Notwithstanding any provisions in Minn. R. 7011.1000 to 7011.1015, no Permittee of a dry bulk agricultural commodity facility may operate or maintain a facility that creates a public nuisance. If the commissioner determines that operation or maintenance of a commodity facility creates a public nuisance, the commissioner may require the Permittee to take measures necessary to eliminate the nuisance. [Minn. R. 7011.1010]
5.54.7	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 17, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 17, as well as those listed at the total facility (TFAC 1) and within Permit Appendix B.

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	Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 17, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 12 at all times that any of the equipment is being operated. 2. Any increase in short-term process throughput rates beyond that authorized in the "Process Throughput" requirement in STRU 17, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in STRU 17 up to the maximum value allowable in the requirement, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 17, 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.54.8	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 866.4 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.54.9	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. The Permittee must conduct the performance test on the date specified in the Performance Test

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	Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.54.10	Short-term Process Throughput <= 866.4 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.54.11	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.54.12	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 emission rates as

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	required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the DDGS throughput and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average DDGS throughput for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 17 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 17 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.54.13	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. The Permittee must conduct the performance test on the date specified in the Performance Test

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	Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.54.14	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]
5.54.15	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 Notice of 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]
5.54.16	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. 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)]
5.54.17	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 18	**Fluid Bed Receiver**
5.55.1	The Permittee must vent emissions from all emission units that vent to STRU 18 to a fabric filter that meets the requirements of EQUI 101, whenever any emission unit that vents to STRU 18 operates, and must operate and maintain a fabric filter that meets the requirements of EQUI 101 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) & Minn. R. 7007.3000]
5.55.2	The Permittee shall limit emissions of Particulate Matter <= 0.170 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.55.3	The Permittee shall limit emissions of PM < 10 micron <= 0.170 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) & Minn. R. 7007.3000]
5.55.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.170 pounds per hour 3-hour block 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) & Minn. R. 7007.3000]
5.55.5	Opacity <= 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]

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5.55.6	Notwithstanding any provisions in Minn. R. 7011.1000 to 7011.1015, no Permittee of a dry bulk agricultural commodity facility may operate or maintain a facility that creates a public nuisance. If the commissioner determines that operation or maintenance of a commodity facility creates a public nuisance, the commissioner may require the Permittee to take measures necessary to eliminate the nuisance. [Minn. R. 7011.1010]
5.55.7	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 18, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 18, as well as those listed at the total facility (TFAC 1) and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 18, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of EQUI 101 at all times that any of the equipment is being operated. 2. Any increase in short-term process throughput rates beyond that authorized in the "Process Throughput" requirement in STRU 18, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in STRU 18 up to the maximum value allowable in the requirement, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 18, 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. 5. The Permittee must document the changes to any TREA and EQUI in the tables of Appendix B, and in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.55.8	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 866.1 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.55.9	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased

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	process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.55.10	Short-term Process Throughput <= 866.1 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

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5.55.11	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the DDGS throughput and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average DDGS throughput for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 18 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 18 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.55.12	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.55.13	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased

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	process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.55.14	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]
5.55.15	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 Notice of 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]
5.55.16	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. 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)]
5.55.17	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 21	**Dryer 1 Emergency Bypass**
5.56.1	Emergency Bypass Use: The Permittee may bypass TREA 24 (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

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	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. 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]
STRU 22	**Fluid Bed Cooling**
5.57.1	The Permittee must vent emissions from all emission units that vent to STRU 22 to a fabric filter that meets the requirements of TREA 11, whenever any emission unit that vents to STRU 22 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 11 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) & Minn. R. 7007.3000]
5.57.2	The Permittee shall limit emissions of Particulate Matter <= 1.310 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.3	The Permittee shall limit emissions of Volatile Organic Compounds <= 13.20 pounds per hour 3-hour average as measured by total mass of VOC basis. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.4	The Permittee shall limit emissions of PM < 10 micron <= 1.310 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) & Minn. R. 7007.3000]
5.57.5	The Permittee shall limit emissions of PM < 2.5 micron <= 1.310 pounds per hour 3-hour block 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) & Minn. R. 7007.3000]
5.57.6	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, or the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. The Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate is 863.9 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test. If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate Limit requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.57.7	Procedure to Increase Maximum Achievable Process Rate: The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of

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	the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. 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 while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. This procedure may change the control equipment operating parameter limits. 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. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]
5.57.8	Short-term Process Throughput <= 863.9 gallons per minute 3-hour block average beer feed rate from beerwell to the distillation process as determined during the 8/6/2019 performance test, 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 below. The beer feed rate will be measured from the beer well to the beer strippers based on a flowmeter (gpm). The short-term process throughput limit must remain in the permit to define the short-term throughput of the process, based on the applicable averaging period, as well as to reflect the short-term process throughput rates established during performance testing. The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Grain-receiving receipts and DDGS loadout receipts may be used where specified by the permit. 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 block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.9	The Permittee must maintain at the facility adequate flow monitor records to demonstrate continuous compliance with all short-term operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing

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	the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. 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 Form. [Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.10	Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM-10/PM-2.5 and VOC as mass emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit is to be reset, the reset shall be based on the average Short-Term Process Throughput Limit values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants. Testing to verify an emission factor does not reset short-term process throughput limits. During each performance test, the Permittee must continuously monitor the DDGS throughput and any other process and control parameters detailed in Appendix C. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts for the 3-hour period of the performance test. The Permittee shall calculate the average DDGS throughput for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time. The Short-Term Process Throughput Limit shall be reset as follows: - If the test results are less than or equal to 80% of tested STRU 22 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate, which may be simultaneously reset to the process rate during the test if testing was performed greater than 100% of the MAPR; - If the test results are greater than 80% of any STRU 22 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs. [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]
5.57.11	Procedure to Increase Short-Term Process Throughput Limit: The Permittee may increase the 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. 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of

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	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 for increasing the short-term process throughput limit. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. 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 limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. 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]
5.57.12	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]
5.57.13	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 Notice of 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]
5.57.14	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. 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)]
5.57.15	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 24	**Hammermill #4**
5.58.1	The Permittee must vent emissions from all emission units venting to STRU 24 to a fabric filter that meets the requirements of TREA 15 whenever any emission unit venting to STRU 24 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 15 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) & Minn. R. 7007.3000]
5.58.2	The Permittee shall limit emissions of Particulate Matter <= 0.120 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]

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5.58.3	The Permittee shall limit emissions of PM < 10 micron <= 0.120 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]
5.58.4	The Permittee shall limit emissions of PM < 2.5 micron <= 0.120 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]
5.58.5	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 24, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 24, as well as those listed at the total facility (TFAC 1), COMG 14, and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 24, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 15 at all times that any of the equipment is being operated, 2. Any increase in short-term process throughput rates must be authorized in the "Process Throughput" requirement in COMG 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in COMG 14, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 24, and 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.58.6	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. 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)]
5.58.7	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
STRU 26	**Dryer 2 Emergency Bypass**
5.59.1	Emergency Bypass Use: The Permittee may bypass TREA 24 (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 period 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. The emissions emitted during a bypass event shall be considered uncontrolled and shall be reported

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	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]
STRU 27	**Centrifuge Bypass**
5.60.1	Opacity <= 20 percent opacity. This limit applies individually to each unit venting to STRU 27. [Minn. R. 7011.0715, subp. 1(B)]
5.60.2	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. This limit applies individually to each unit venting to STRU 27. [Minn. R. 7011.0715, subp. 1(A)]
STRU 44	**Hammermill #5**
5.61.1	The Permittee is authorized to construct and operate STRU 44, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 01300099-106. 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]
5.61.2	The Permittee must vent emissions from all emission units venting to STRU 44 to a fabric filter that meets the requirements of TREA 25 whenever any emission unit venting to STRU 44 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 25 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]
5.61.3	The Permittee shall limit emissions of Particulate Matter <= 0.150 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]
5.61.4	The Permittee shall limit emissions of PM < 10 micron <= 0.150 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]
5.61.5	The Permittee shall limit emissions of PM < 2.5 micron <= 0.150 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]
5.61.6	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 44, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 44, as well as those listed at the total facility (TFAC 1), COMG 14, and within Permit Appendix B. Additionally: 1. All of the existing, new, modified and replaced equipment that vents to STRU 44, and as identified in Appendix B including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 25 at all times that any of the equipment is being operated, 2. Any increase in short-term process throughput rates must be authorized in the "Process Throughput" requirement in COMG 14, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement in COMG 14, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified in STRU 44, and 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit and DDGS loadout

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	operations) using the flexibility provisions of this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.61.7	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. 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)]
5.61.8	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix C. 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]
TREA 1	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.62.1	The Permittee must vent emissions from any emission unit that vents to STRU 9 to a fabric filter that meets the requirements of TREA 1 whenever any emission unit that vents to STRU 9 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 1 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.62.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99.8 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 99.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 97.8 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.0030 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0030 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) & Minn. R. 7007.3000]
5.62.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0030 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) & Minn. R. 7007.3000]
5.62.8	The Permittee shall operate and maintain control equipment such that it achieves a collection efficiency for Particulate Matter >= 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]
5.62.9	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)]
5.62.10	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 1, such control equipment must meet or exceed the control efficiency requirements of TREA 1 as well as

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	comply with all other requirements of TREA 1, TFAC 1, STRU 9 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 9. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.11	(continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. The Permittee must provide a copy of the most recent hood certification test that identifies and documents the air flow parameters relied upon in the evaluation with the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 9. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 9 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 9. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr)

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	following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 9. The performance test may reset the short-term throughput limit at STRU 9, must confirm compliance with emission limits identified at STRU 9, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 9 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.12	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2]
5.62.13	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]
5.62.14	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 9 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.15	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.16	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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

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	- 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.62.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.62.18	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 Notice of 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]
5.62.19	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.20	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.62.21	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.62.22	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.62.23	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]

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5.62.24	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.62.25	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.62.26	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.62.27	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]
5.62.28	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]
5.62.29	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

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	review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.62.30	Hood Certification and Evaluation: The Permittee shall 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 verify that a minimum capture velocity of 200 afcm/ft2 of open face area is achieved for grain receiving operations, must verify that a minimum capture velocity of 150 afcm/ft2 is achieved for DDGS loadout operations, and must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, closing doors). The Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0072, subps. 2 - 4, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.62.31	Annual Hood Evaluation: The Permittee shall 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 shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0072, subps. 2-4, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
TREA 2	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.63.1	The Permittee must vent emissions from any emission unit that vents to STRU 10 to a fabric filter that meets the requirements of TREA 2 whenever any emission unit that vents to STRU 10 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 2 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.63.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99.8 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 99.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 98.1 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.0050 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.63.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0050 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) & Minn. R. 7007.3000]

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5.63.8	The Permittee shall operate and maintain control equipment such that it achieves a collection efficiency for Particulate Matter >= 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]
5.63.9	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)]
5.63.10	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 2, such control equipment must meet or exceed the control efficiency requirements of TREA 2 as well as comply with all other requirements of TREA 2, TFAC 1, STRU 10 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 10. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.11	(continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. The Permittee must provide a copy of the most recent hood certification test that identifies and documents the air flow parameters relied upon in the evaluation with the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 10.

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	Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 10 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 10. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 10. The performance test may reset the short-term throughput limit at STRU 10, must confirm compliance with emission limits identified at STRU 10, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 10 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.12	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.63.13	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]
5.63.14	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 10 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.15	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.16	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.

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	During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.63.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.63.18	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 Notice of 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]
5.63.19	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.63.20	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.63.21	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.63.22	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment components not covered by the quarterly inspections. This includes, but is not limited to, components

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	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. [40 CFR 64.3, Minn. R. 7017.0200]
5.63.23	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.63.24	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.63.25	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.63.26	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.63.27	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]
5.63.28	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

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	information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.63.29	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]
TREA 3	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.64.1	The Permittee must vent emissions from any emission unit that vents to STRU 11 to a fabric filter that meets the requirements of TREA 3 whenever any emission unit that vents to STRU 11 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 3 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.64.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 98.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.00150 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.64.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.64.8	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 3, such control equipment must meet or exceed the control efficiency requirements of TREA 3 as well as comply with all other requirements of TREA 3, TFAC 1, STRU 11, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being

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	controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified in STRU 11. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.9	(continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. 6. This fabric filter is required to control emissions that are subject to performance testing under STRU 11. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 11 by using the "Procedure to Increase Process Throughput Limit" requirement in STRU 11. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1, STRU 11, and the "Procedure to Increase Process Throughput Limit" requirements in STRU 11. The performance test may reset the short-term throughput limit at STRU 11, and must confirm compliance with emission limits identified at STRU 11, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency in STRU 11 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.10	Prior to replacing the control equipment, 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. A permit amendment is needed regardless of the emissions increase if the change will be subject to a

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	new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]
5.64.11	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]
5.64.12	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 11 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.13	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.14	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

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5.64.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.64.16	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 Notice of 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]
5.64.17	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.64.18	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.64.19	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.64.20	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.64.21	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.64.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.64.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the Permittee shall conduct all monitoring in continuous operation (or

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	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. 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]
5.64.24	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.64.25	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]
5.64.26	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]
5.64.27	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]
TREA 4	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.65.1	The Permittee must vent emissions from any emission unit that vents to STRU 12 to a fabric filter that meets the requirements of TREA 4 whenever any emission unit that vents to STRU 12 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 4 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.65.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 98.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

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5.65.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.00150 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.65.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.65.8	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 4, such control equipment must meet or exceed the control efficiency requirements of TREA 4 as well as comply with all other requirements of TREA 4, TFAC 1, STRU 12, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified in STRU 12. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.

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	(continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.9	continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. 6. This fabric filter is required to control emissions that are subject to performance testing under STRU 12. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 12 by using the "Procedure to Increase Process Throughput Limit" requirement in STRU 12. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1, STRU 12, and the "Procedure to Increase Process Throughput Limit" requirements in STRU 12. The performance test may reset the short-term throughput limit at STRU 12, and must confirm compliance with emission limits identified at STRU 12, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency in STRU 12 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.10	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.65.11	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]
5.65.12	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 12 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.13	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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

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	considered uncontrolled until the pressure drop reading 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(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.14	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.65.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7017.1500, subp. 1]
5.65.16	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 Notice of 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]
5.65.17	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.65.18	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.

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	This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.65.19	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.65.20	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.65.21	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.65.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.65.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.65.24	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]

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5.65.25	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]
5.65.26	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]
5.65.27	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]
TREA 5	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.66.1	The Permittee must vent emissions from any emission unit that vents to STRU 13 to a fabric filter that meets the requirements of TREA 5 whenever any emission unit that vents to STRU 13 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 5 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.66.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 98.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.00150 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.66.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.66.8	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 5, such control equipment must meet or exceed the control efficiency requirements of TREA 5 as well as

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	comply with all other requirements of TREA 5, TFAC 1, STRU 13, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified in STRU 13. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.9	(continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. 6. This fabric filter is required to control emissions that are subject to performance testing under STRU 13. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 13 by using the "Procedure to Increase Process Throughput Limit" requirement in STRU 13. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1, STRU 13, and the "Procedure to Increase Process Throughput Limit" requirements in STRU 13. The performance test may reset the short-term throughput limit at STRU 13, and must confirm compliance with emission limits identified at STRU 13,

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	and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency in STRU 13 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.10	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.66.11	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]
5.66.12	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 13 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.13	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.14	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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

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	value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.66.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.66.16	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 Notice of 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]
5.66.17	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.18	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.66.19	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.66.20	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.66.21	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.66.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or

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	2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.66.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.66.24	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.66.25	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]
5.66.26	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]
5.66.27	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]
TREA 7	**Wet Scrubber - High Efficiency**
5.67.1	The Permittee must vent emissions from any emission unit that vents to STRU 15 to a scrubber that meets the requirements of TREA 7 whenever any emission unit that vents to STRU 15 operates, and

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	must operate and maintain a scrubber that meets the requirements of TREA 7 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.2	When emissions are not vented to the regenerative thermal oxidizer (RTO), the Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds >= 95.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.67.3	When emissions are not vented to the regenerative thermal oxidizer (RTO), the Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency HAPs - Total >= 50.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.4	If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 7, such control equipment must meet or exceed the control efficiency requirements of TREA 7 as well as comply with all other requirements of TREA 7, TFAC 1, and STRU 15 and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. Provide justification that the VOC as mass emissions will remain below the lb/hr limits specified at STRU 15. This may include manufacturer guarantees, design calculations, or similar that establish that the scrubber is capable of controlling the emissions vented to it. The documentation must be submitted with the Annual Report, 2. Submit notification of initial startup of the scrubber and intent to conduct a performance test of the modified or replaced scrubber, 3. Any increase to the short-term process throughput limit beyond that authorized in the "Short-term Process Throughput" requirement at STRU 15, must be reestablished using the "Procedure to Increase Process Throughput Limit" requirement at STRU 15, up to the maximum value allowable in the requirement, 4. Within 90 days of initial startup of a modified or replaced scrubber, the Permittee must conduct a performance test for VOC as mass (lb/hr), VOC percent overall control efficiency and verification of HAP emission factors (lb/hr), following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 15. The performance test must confirm the operating parameters, short-term throughput limits, and emission limits identified at TREA 7 and STRU 15. 5. Emissions of VOC as mass must remain below the lb/hr limits specified at STRU 15. 6. The performance test may reset the performance test due dates and frequency at STRU 15 as identified within a Notice of Compliance letter. 7. The Permittee must document the changes to any TREA 7 in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.5	If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 7, 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 STRU 15. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]

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5.67.6	Prior to making such a change, 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. A permit amendment will 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)]
5.67.7	The Permittee shall operate and maintain the control equipment 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]
5.67.8	Alternate Operating Scenario 1: Pressure Drop >= 0.1 and <= 10.0 inches of water column unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. 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(a)(2), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.9	Alternate Operating Scenario 1A: Scrubber Water flow rate >= 40.0 gallons per minute 3-hour rolling average through the scrubber when emissions are vented to the Regenerative Thermal Oxidizer (RTO), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded 3-hour average water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.10	Alternate Operating Scenario 1B: Scrubber Water flow rate >= 44.0 gallons per minute 3-hour rolling average when emissions ARE NOT vented to the RTO, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded 3-hour average water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.11	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Read and record the scrubber liquid flow rate whenever emissions are venting to the scrubber using Alternate Operating Scenario 1A or 1B for the flow rate limit; and 2). Read and record the gas pressure drop across the scrubber whenever emissions are venting to the scrubber using Alternate Operating Scenario 1 for the pressure drop range. [40 CFR 64.3, Minn. R. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.12	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the VOC as mass emission rate, inlet and outlet HAP emission factors, and VOC control efficiency 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 for all pollutants.

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	During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 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]
5.67.13	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the VOC as mass emission rate, inlet and outlet HAP emission factors, and VOC control efficiency as required elsewhere in this permit. If the established Water 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 for all pollutants. During the performance test, the Permittee must continuously monitor the water flow rate. The Permittee shall 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. The Water Flow Rate Limit shall be reset as follows: - 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 Water Flow Rate Limit remains unchanged; or - 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 - 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. The new Water Flow Rate Limit shall be effective upon receipt of the Notice of 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 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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5.67.14	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit or the Protocol for Resetting the Water Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.67.15	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 Notice of 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]
5.67.16	Recordkeeping of Water Flow Rate: At least once during every 24-hour period the Permittee shall record 1) the water flow rate to the scrubber, 2) the time and date of the recording, 3) the applicable Alternate Operating Scenario (whether or not emissions are being vented to the scrubber/RTO) and 4) whether or not the recorded water flow rate is within the indicator range for the Alternate Operating Scenario 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 and are considered excursions as defined by 40 CFR 64.1. [40 CFR 64.3, Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.17	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months and shall maintain a written record of any action resulting from the calibration or the replacement. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 5, Minn. R. 7017.0200]
5.67.18	Recordkeeping of Pressure Drop: At least once during every 24-hour period the Permittee shall record 1) the pressure drop across the scrubber, 2) the time and date of the recording, and 3) whether or not the recorded pressure drop is within the indicator range for the Alternate Operating Scenario 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 and are considered excursions as defined by 40 CFR 64.1. [40 CFR 64.3, Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.19	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow rate and pressure drop 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. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.67.20	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment external components. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [40 CFR 64.3, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.67.21	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.67.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. the recorded water flow rate is outside the required operating range; or 2. the recorded pressure drop is outside the required operating range; or

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	3. the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range, 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 scrubber. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5, Minn. R. 7017.0200]
5.67.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. [40 CFR 64.7(c), Minn. R. 7017.0200]
5.67.24	Response to excursions. 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. [40 CFR 64.7(d)(1), Minn. R. 7017.0200]
5.67.25	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]
5.67.26	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]
5.67.27	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]
TREA 11	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.68.1	The Permittee must vent emissions from the fluid bed cooler that vents to STRU 16 or STRU 22 to a fabric filter that meets the requirements of TREA 11 whenever the fluid bed cooler operates and vents to STRU 16 or STRU 22 and must operate and maintain a fabric filter that meets the requirements of TREA 11 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]

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5.68.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 93.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 93.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.0060 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.68.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0060 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) & Minn. R. 7007.3000]
5.68.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0060 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) & Minn. R. 7007.3000]
5.68.8	The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter >= 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]
5.68.9	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)]
5.68.10	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]
5.68.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.68.12	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]
5.68.13	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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

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	resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.68.14	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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]
5.68.15	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]
5.68.16	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 11, such control equipment must meet or exceed the control efficiency requirements of TREA 11 as well as comply with all other requirements of TREA 11, TFAC 1, STRU 22, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of VOC, PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 22. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.68.17	continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain

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	receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. The Permittee must provide a copy of the most recent hood certification test that identifies and documents the air flow parameters relied upon in the evaluation with the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 22. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 22 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 22. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 22. The performance test may reset the short-term throughput limit at STRU 22, must confirm compliance with emission limits identified at STRU 22, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 22 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.68.18	Prior to replacing the control equipment, 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. 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)]
5.68.19	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.68.20	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 demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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.

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	The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.68.22	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 Notice of 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]
5.68.23	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) & Minn. R. 7007.3000]
5.68.24	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) & Minn. R. 7007.3000]
TREA 12	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.69.1	The Permittee must vent emissions from any emission unit that vents to STRU 17 to a fabric filter that meets the requirements of TREA 12 whenever any emission unit that vents to STRU 17 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 12 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.69.2	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.0050 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.69.3	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.0050 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) & Minn. R. 7007.3000]
5.69.4	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.0050 grains per dry standard cubic foot. [Minn. R.

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	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) & Minn. R. 7007.3000]
5.69.5	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.6	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 93.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.7	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 93.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.8	The Permittee shall operate and maintain control equipment such that it achieves a collection efficiency for Particulate Matter >= 80 percent collection efficiency for the control equipment. [Minn. R. 7011.1005, subp. 3(E)]
5.69.9	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)]
5.69.10	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]
5.69.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.69.12	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]
5.69.13	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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]
5.69.14	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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]
5.69.15	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

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	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]
5.69.16	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 12, such control equipment must meet or exceed the control efficiency requirements of TREA 12 as well as comply with all other requirements of TREA 12, TFAC 1, STRU 17, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 17. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.69.17	continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. The Permittee must provide a copy of the most recent hood certification test that identifies and documents the air flow parameters relied upon in the evaluation with the Annual Report. 6. This fabric filter is required to control emissions that are subject to performance testing at STRU 17. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 17

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	by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 17. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 17. The performance test may reset the short-term throughput limit at STRU 17, must confirm compliance with emission limits identified at STRU 17, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency at STRU 17 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.69.18	Prior to replacing the control equipment, 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. 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)]
5.69.19	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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) & Minn. R. 7007.3000]
5.69.20	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 demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data

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	acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.69.22	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 Notice of 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]
5.69.23	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) & Minn. R. 7007.3000]
5.69.24	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) & Minn. R. 7007.3000]
5.69.25	Visible Emissions: Once each week of operation, the Permittee shall conduct visible emissions (VE) readings at the fabric filter stack. 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 visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.69.26	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. Identification of visible emissions is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
TREA 14	**Flaring**
5.70.1	The Permittee must vent captured emissions from all emission units that vent to STRU 20 to a flare that meets the requirements of TREA 14 whenever any emission unit that vents to STRU 20 operates, and must operate and maintain a flare that meets the requirements of TREA 14 at all times that any emissions vent to it, except as authorized by this permit (See EQUI 55). The Permittee must document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.70.2	The Permittee shall operate and maintain control equipment such that it achieves an overall destruction efficiency for Volatile Organic Compounds >= 98.0 percent destruction efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.70.3	The Permittee shall operate and maintain control equipment such that it achieves an overall destruction efficiency for HAPs - Total >= 98.0 percent destruction efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]

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5.70.4	Opacity <= 0 percent opacity 6-minute average except for periods not to exceed 5 minutes in any 2 consecutive hours. 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. 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. The Permittee shall determine the presence of visible emissions using Reference Method 22 when requested by the Commissioner. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]
5.70.5	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.70.6	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)]
5.70.7	Fuel Type: Natural gas only for supplemental fuel. [Minn. R. 7007.0800, subp. 2(A)]
5.70.8	If the Permittee replaces a flare that meets or exceeds the requirements of TREA 14, or modifies the existing flare such that it changes emission rates or modeled parameters, the replacement or modified control must meet or exceed the control efficiency requirements of TREA 14 as well as comply with all other requirements of TREA 14, TFAC 1, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The airflow (dscfm) for the replaced or modified flare must meet or exceed the airflow listed in Appendix B of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 2. The temperature for the replaced or modified flare must meet or exceed the temperature listed in Appendix B of this permit. The Permittee must provide verification of the design BTU/scf with the Annual Report. If the temperature does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must document the changes to any TREA in the Flexible Permitting Table in Appendix B of the permit seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report. 4. Within 30 days of initial startup of a modified or replaced flare, the Permittee shall conduct an initial flare compliance assessment at the loadout flare. The Permittee shall determine compliance with visible emission provisions via Method 22 of Appendix A of Part 60. The observation period is 2 hours. Conduct visible emissions observations during daylight hours while emissions are venting to the flare to verify that the flare is operating with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. The Permittee must document the results of the observation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]

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5.70.9	The flare shall be operated with a flare flame or pilot flame (or an electronically controlled automatic igniter system) present at all times. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]
5.70.10	The flare shall only be used 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). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.70.11	Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity and velocity Vmax, 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: 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 2. Steam-assisted and nonassisted flares designed for and operated with an exit velocity less than the velocity, Vmax, and less than 400 ft/sec are allowed. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.70.12	Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax as determined by the method in 40 CFR 60.18(f)(6). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.70.13	Flares shall be steam-assisted, air-assisted, or nonassisted. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.70.14	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4]
5.70.15	Daily Inspections: The Permittee shall physically verify the operation of the flame recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a record of the daily verifications. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.70.16	Daily Visible Emissions check: The Permittee shall conduct a visual observation of the flare at least once each operating day, 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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.70.17	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 written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.70.18	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, Minn. R. 7007.0800, subp. 2(A)]
5.70.19	Annual Inspection: At least once per calendar year, the Permittee shall conduct an inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain

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	a record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 4-5]
5.70.20	Records Requirement: The Permittee shall record the date, times and duration of all periods during which: 1. the flare flame or all the pilot flames are absent, 2. visible emissions were documented, 3. whether or not emissions were being vented to the flare during periods of flame absence, and 4. whether or not emissions were being vented to the flare during periods of visible emissions. 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. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.70.21	Recordkeeping of Flame Presence and 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. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.70.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the presence of a flame is not detected; or - the flare or any of its components are found during the inspections to need repair. 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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
TREA 15	**Fabric Filter - Low Temperature, i.e., T<180 Degrees F**
5.71.1	The Permittee must vent emissions from any emission unit that vents to STRU 24 to a fabric filter that meets the requirements of TREA 15 whenever any emission unit that vents to STRU 24 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 15 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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) & Minn. R. 7007.3000]
5.71.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 98.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

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5.71.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 98.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.00150 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.71.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.71.8	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 15, such control equipment must meet or exceed the control efficiency requirements of TREA 15 as well as comply with all other requirements of TREA 15, TFAC 1, STRU 24, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified in STRU 24. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.9	(continued from above)

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	5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. 6. This fabric filter is required to control emissions that are subject to performance testing under STRU 24. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 24 by using the "Procedure to Increase Process Throughput Limit" requirement in STRU 24. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1, STRU 24, and the "Procedure to Increase Process Throughput Limit" requirements in STRU 24. The performance test may reset the short-term throughput limit at STRU 24, and must confirm compliance with emission limits identified at STRU 24, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency in STRU 24 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.10	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.71.11	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]
5.71.12	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 24 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.13	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

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5.71.14	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.71.16	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 Notice of 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]
5.71.17	Recordkeeping of Visible Emissions and Pressure Drop: At least once during every 24-hour period the Permittee shall record 1) the results of the visible emission inspection or the pressure drop across the fabric filter, 2) the time and date of the recording, and 3) whether or not there were visible emissions or if the pressure drop recording is within the indicator range specified in this permit. The presence of visible emissions, or recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a, and are considered excursions as defined by 40 CFR 64.1. [40 CFR 64.3(b)(4), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.18	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.71.19	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment external

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	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. [40 CFR 64.3, Minn. R. 7017.0200]
5.71.20	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.71.21	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.71.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.71.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.71.24	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.71.25	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

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	MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.71.26	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]
5.71.27	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]
TREA 21	**Oxidation Catalyst**
5.72.1	The Permittee must vent emissions from EQUI 56 to TREA 21 whenever EQUI 56 operates, and must operate and maintain TREA 21 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.72.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide >= 70.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.72.3	The Permittee shall operate and maintain the oxidation catalyst 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]
5.72.4	The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records both the inlet and outlet temperatures of the oxidation catalyst. 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 four-hour rolling average inlet temperature. [Minn. R. 7007.0800, subps. 4-5]
5.72.5	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. [Minn. R. 7007.0800, subps. 4-5]
5.72.6	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. [Minn. R. 7007.0800, subps. 4-5]
5.72.7	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. [Minn. R. 7007.0800, subps. 4-5]
5.72.8	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.72.9	Monthly Monitoring: At least once each month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temp. - inlet temp.) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective

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	actions in the Operation and Maintenance Plan. The Permittee shall maintain written records of the monitoring and any corrective actions taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.72.10	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.72.11	Annual Inspection: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect all control equipment components not covered by the quarterly inspections. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.72.12	Corrective Actions: If the temperature is below the minimum specified by this permit or if the oxidation catalyst 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 oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
TREA 22	**Oxidation Catalyst**
5.73.1	The Permittee must vent emissions from EQUI 57 to TREA 22 whenever EQUI 57 operates, and must operate and maintain TREA 22 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.73.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide >= 70.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.73.3	The Permittee shall operate and maintain the oxidation catalyst 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]
5.73.4	The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records both the inlet and outlet temperatures of the oxidation catalyst. 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 four-hour rolling average inlet temperature. [Minn. R. 7007.0800, subps. 4-5]
5.73.5	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. [Minn. R. 7007.0800, subps. 4-5]
5.73.6	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. [Minn. R. 7007.0800, subps. 4-5]

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5.73.7	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. [Minn. R. 7007.0800, subps. 4-5]
5.73.8	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.73.9	Monthly Monitoring: At least once each month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temp. - inlet temp.) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective actions in the Operation and Maintenance Plan. The Permittee shall maintain written records of the monitoring and any corrective actions taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.73.10	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.73.11	Annual Inspection: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect all control equipment components not covered by the quarterly inspections. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.73.12	Corrective Actions: If the temperature is below the minimum specified by this permit or if the oxidation catalyst 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 oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
TREA 23	**Oxidation Catalyst**
5.74.1	The Permittee must vent emissions from EQUI 58 to TREA 23 whenever EQUI 58 operates, and must operate and maintain TREA 23 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.74.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide >= 70.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.74.3	The Permittee shall operate and maintain the oxidation catalyst 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]
5.74.4	The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records both the inlet and outlet temperatures of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being

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	measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the four-hour rolling average inlet temperature. [Minn. R. 7007.0800, subps. 4-5]
5.74.5	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. [Minn. R. 7007.0800, subps. 4-5]
5.74.6	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. [Minn. R. 7007.0800, subps. 4-5]
5.74.7	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. [Minn. R. 7007.0800, subps. 4-5]
5.74.8	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.74.9	Monthly Monitoring: At least once each month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temp. - inlet temp.) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective actions in the Operation and Maintenance Plan. The Permittee shall maintain written records of the monitoring and any corrective actions taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.74.10	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.74.11	Annual Inspection: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect all control equipment components not covered by the quarterly inspections. 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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.74.12	Corrective Actions: If the temperature is below the minimum specified by this permit or if the oxidation catalyst 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 oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
TREA 24	**Regenerative Thermal Oxidizer**
5.75.1	The Permittee must vent emissions from any emission unit that vents to STRU 16 to TREA 24 (RTO) whenever any emission unit that vents to STRU 16 operates, and must operate and maintain TREA 24 (RTO) at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-

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	7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.75.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds >= 95.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for HAPs - Total >= 95.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.75.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide >= 90.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.5	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 90.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.6	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 90.0 percent control efficiency. [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]
5.75.7	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 90.0 percent control efficiency. [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]
5.75.8	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)]
5.75.9	Sulfur Dioxide <= 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. [Minn. R. 7011.0610, subp. 2(B)]
5.75.10	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. 7011.0610, subp. 1(A)(1), Minn. R. 7011.0715, subp. 3]
5.75.11	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.75.12	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.75.13	The Permittee shall operate and maintain the regenerative thermal oxidizer 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]
5.75.14	Alternate Operating Scenario 1B: Temperature >= 1700 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet when bypassing the scrubber, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the PM/PM10/PM2.5, VOC, CO, and HAPs-Total emitted during that time shall be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(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]

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5.75.15	Alternate Operating Scenario 1A: Temperature >= 1674 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the PM/PM10/PM2.5, VOC, CO, and HAPs-Total emitted during that time shall be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(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]
5.75.16	Protocol for Re-Setting the Minimum Temperature Limit: The Permittee shall conduct performance testing to measure the VOC, HAPs - Total, CO, PM, PM < 10, and PM < 2.5 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 shall 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. The Minimum Temperature Limit shall be re-set as follows: - 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 - 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. The new Minimum Temperature Limit determined using this Protocol shall be effective upon receipt of the Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.17	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]
5.75.18	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 Notice of 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]
5.75.19	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 +/- 2.5 degrees Celsius. 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.

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	8a. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200, 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]
5.75.20	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once every 24 hours 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. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.0200, 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]
5.75.21	Recordkeeping of Temperature: The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings, the calculated three hour rolling average temperatures for the combustion chamber, and the applicable Alternate Operating Scenario (whether or not emissions are being vented to the RTO/scrubber). Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and are considered excursions as defined by 40 CFR Section 64.1. [40 CFR 64.9(b), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, 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]
5.75.22	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. 7007.0800, subp. 4, Minn. R. 7017.0200]
5.75.23	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the external control equipment components, including but not limited to the refractory, heat exchanger, and electrical systems. 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. [40 CFR 64.3, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.75.24	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal and all other control equipment 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. [40 CFR 64.3, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.75.25	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 5, Minn. R. 7017.0200]
5.75.26	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the temperature is below the minimum specified by this permit; or - the thermal oxidizer or any of its components are found during the inspections to need repair. 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

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	Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 5, Minn. R. 7017.0200]
5.75.27	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. [40 CFR 64.7(c), Minn. R. 7017.0200]
5.75.28	Response to excursions. 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. [40 CFR 64.7(d)(1), Minn. R. 7017.0200]
5.75.29	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 minimum combustion chamber temperature(s), the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring changes. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.75.30	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]
5.75.31	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]
TREA 25	**Hammermill 5 Baghouse**
5.76.1	The Permittee must vent emissions from any emission unit that vents to STRU 44 to a fabric filter that meets the requirements of TREA 25 whenever any emission unit that vents to STRU 44 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 25 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [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 63.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter >= 99.4 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 10 micron >= 99.4 percent control efficiency. [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) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.76.4	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM < 2.5 micron >= 99.4 percent control efficiency. [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) & Minn. R. 7007.3000]
5.76.5	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for Particulate Matter <= 0.00150 grains per dry standard cubic foot. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.6	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 10 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.76.7	The Permittee shall operate and maintain control equipment such that it achieves an outlet concentration rate for PM < 2.5 micron <= 0.00150 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) & Minn. R. 7007.3000]
5.76.8	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 25, such control equipment must meet or exceed the control efficiency requirements of TREA 25 as well as comply with all other requirements of TREA 25, TFAC 1, STRU 44, and Permit Appendix B. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than the listed value within Appendix B, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design grain outlet concentration (gr/dscf) that is less than or equal to that listed within Appendix B of this permit, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix B of this permit. If the airflow does not meet or exceed the airflow listed in Appendix B of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 1. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified in STRU 44. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. (continued below). [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.76.9	(continued from above) 5. For fabric filters that aspirate emission units that require an annual hood evaluation (e.g., grain receiving pits and DDGS loadout operations), the replacement or modified fabric filter air flow parameters that were measured during the most recent hood certification must meet or exceed those relied upon during the test. 6. This fabric filter is required to control emissions that are subject to performance testing under STRU 44. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter. 7. The Permittee may increase the existing short-term process throughput limit contained at STRU 44 by using the "Procedure to Increase Process Throughput Limit" requirement in STRU 44. 8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 1, STRU 44, and the "Procedure to Increase Process Throughput Limit" requirements in STRU 44. The performance test may reset the short-term throughput limit at STRU 44, and must confirm compliance with emission limits identified at STRU 44, and must verify that the fabric filter can achieve the outlet concentration (gr/dscf) and airflow identified in Appendix B. 9. The performance test may reset the performance test due dates and frequency in STRU 44 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.10	Prior to replacing the control equipment, 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. 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 permit. [Minn. R. 7007.0800, subp. 2(A)]
5.76.11	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]
5.76.12	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 44 for any visible emissions during daylight hours whenever emissions are venting to the fabric filter, except during inclement weather. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. 2). Read and record the pressure drop across the fabric filter whenever emissions are venting to the fabric filter. [40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.13	Pressure Drop >= 0.1 and <= 6.0 inches of water 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 Notice of 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. The period of time for which the pressure drop is considered out of range shall be reported as a deviation.

Requirement number	Requirement and citation
	[40 CFR 64.3(a)(2), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.14	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. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall 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. The established Pressure Drop Range Limit shall be reset as follows: - 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 - 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. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). 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 Notice of 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.76.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.76.16	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 Notice of 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]
5.76.17	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, the applicable operating scenario, 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. 7007.0800, subp. 11, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.76.18	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. This includes, but is not limited to, maintaining necessary parts for routine repairs. [40 CFR 64.7(b), Minn. R. 7017.0200]

Requirement number	Requirement and citation
5.76.19	Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.76.20	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment 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. [40 CFR 64.3, Minn. R. 7017.0200]
5.76.21	Annual Calibration: The Permittee shall calibrate or replace with calibrated gauges at least once every 12 months or more often if required by manufacturer's specifications and maintain a written record of any action resulting from the calibration or replacement. [40 CFR 64.3, Minn. R. 7017.0200]
5.76.22	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: 1. visible emissions are observed; or 2. the recorded pressure drop is outside the required operating range; or 3. the fabric filter or any of its components are found during the inspections to need repair. 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.76.23	Continued operation. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, 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. 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]
5.76.24	Response to excursions. Upon detecting an excursion, 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. 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. 7007.0800, subp. 14, Minn. R. 7017.0200]
5.76.25	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

Requirement number	Requirement and citation
	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]
5.76.26	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]
5.76.27	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]
5.76.28	The Permittee is authorized to construct and operate TREA 25, as defined by the emissions unit information in Appendix B of this permit. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 01300099-104. 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]

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
TFAC 1	**POET Biorefining - Lake Crystal**
6.1.1	Flexible Language Annual Report: The Permittee must submit an Annual Report: due by 31 days after end of each calendar year following permit issuance. The Permittee must attach the Flexible Language Annual Report to the Annual Compliance Certification Report (Form CR-04) by January 31st. Appendix B of this permit identifies existing equipment, controls and stacks that may be modified by relying upon flexibility provisions contained within the permit. In the Flexible Language Annual Report, the Permittee must: 1. Provide a statement that summarizes changes made to equipment, stacks or control equipment identified in Appendix B during the previous calendar year that relied upon flexible language for authorization. If no such changes were made, document this - no further information is required. 2. For any new or modified emission unit, stack or control equipment identified in item 1 above, verify that the appendix contains all of the information needed to describe the change by referring to Forms GI-04, GI-05A and GI-05B. Provide any missing data elements using the MPCA forms, or as an added column to the permit appendix tables. 3. Emission units with both direct and indirect emissions must submit the appropriate amendment application for direct emissions (e.g. new stack parameters on Form GI-04, PTE calculations for direct emissions). If a permit amendment is not required (e.g., the change qualifies as an insignificant modification), attach the PTE calculations and Form GI-04 for the direct emissions to the Flexible Language Annual Report. 4. Include an updated copy of Appendix B that reflects the changes made. All data fields must be completed. The updated copy must reflect all changes made to Appendix B since permit issuance. 5. The Flexible Language Annual Report must be submitted with the annual Compliance Certification listed in Section 6 of this permit, in either hard-copy or email. 6. For all changes made, the Responsible Official must verify and certify that "the facility has maintained minor source status for New Source Review, the NESHAP program, has not exceeded major modification thresholds under 40 CFR Section 52.21, and has continued to comply with all applicable permit requirements, including short-term throughput limits, hourly emission limits and applicable control efficiencies.". [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
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 schedule progress report : Due semiannually, by the 30th of January and July. The Compliance Schedule Progress Report must contain the information specified in Minn. R. 7007.0800, subp. 6(C) and must be submitted on a form approved by the Commissioner in accordance with the Compliance Schedule contained in this permit. Progress Reports will not be

Requirement number	Requirement and citation
	needed upon completion of all activities contained in the Compliance Schedule. [Minn. R. 7007.0800, subp. 6(C)]
6.1.4	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)]
6.1.5	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. [Minn. R. 7007.0800, subp. 16(L)]
6.1.6	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
EQUI 16	**Flour Receiver**
6.2.1	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]
EQUI 56	**Diesel Generator 1**
6.4.1	Carbon Monoxide: The Permittee shall conduct a performance test: Due before 08/11/2025 and every 36 months thereafter, or before the end of each 8,760 hours of operation following subsequent performance tests, whichever comes first, to measure CO emissions using EPA Reference Method 3A and 10 or other method approved by the MPCA in the performance test plan approval. [40 CFR 63.6615, 40 CFR pt. 63, subp. ZZZZ(Table 3)(item 4), Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]
6.4.2	Carbon Monoxide: The Permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6645(g), Minn. R. 7011.8150]
6.4.3	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.6650(b)(1)-(4), Minn. R. 7011.8150]
EQUI 57	**Diesel Generator 2**
6.5.1	Carbon Monoxide: The Permittee shall conduct a performance test: Due before 08/11/2025 and every 36 months thereafter, or before the end of each 8,760 hours of operation following subsequent performance tests, whichever comes first, to measure CO emissions using EPA Reference Method 3A and 10 or other method approved by the MPCA in the performance test plan approval. [40 CFR 63.6615, 40 CFR pt. 63, subp. ZZZZ(Table 3)(item 4), Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]
6.5.2	Carbon Monoxide: The Permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6645(g), Minn. R. 7011.8150]
6.5.3	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first

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	date following the end of the semiannual reporting period. [40 CFR 63.6650(b)(1)-(4), Minn. R. 7011.8150]
EQUI 58	**Diesel Generator 3**
6.6.1	Carbon Monoxide: The Permittee shall conduct a performance test: Due before 08/11/2025 and every 36 months thereafter, or before the end of each 8,760 hours of operation following subsequent performance tests, whichever comes first, to measure CO emissions using EPA Reference Method 3A and 10 or other method approved by the MPCA in the performance test plan approval. [40 CFR 63.6615, 40 CFR pt. 63, subp. ZZZZ(Table 3)(item 4), Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]
6.6.2	Carbon Monoxide: The Permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6645(g), Minn. R. 7011.8150]
6.6.3	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.6650(b)(1)-(4), Minn. R. 7011.8150]
EQUI 122	**Fermentation Tank #7**
6.7.1	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)]
6.7.2	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)]
EQUI 123	**Fermentation Tank #8**
6.8.1	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)]
6.8.2	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)]
EQUI 125	**Centrifuge #6**
6.9.1	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)]
6.9.2	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.

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	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
EQUI 126	**Flour Receiver**
6.10.1	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)]
6.10.2	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)]
EQUI 127	**Hammermill 5**
6.11.1	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)]
6.11.2	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)]
EQUI 128	**Mill #5 Conveyor**
6.12.1	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)]
6.12.2	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)]
FUGI 4	**Equipment Leaks**
6.13.1	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). The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]
6.13.2	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. [40 CFR 60.487a(a), Minn. R. 7011.2900(D)]
FUGI 6	**Wet Cake**
6.14.1	Wetcake Analysis: The Permittee shall conduct sample analysis: Due by 180 days after permit issuance to measure the VOC, acetaldehyde, acrolein, formaldehyde, and methanol content in wetcake. The

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	analysis shall be conducted using EPA Method 8260 for VOC and EPA Method 8315 for HAP or any other method approved by the MPCA. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C)]
FUGI 19	**Fermenter and Beerwell Tops Leaks**
6.15.1	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 19 of this Permit. This report must occur at the same time as the semiannual report required for FUGI 4 in Section 6 of this permit. [Minn. R. 7007.0800, subp. 6]
STRU 9	**Grain Handling**
6.16.1	PM < 10 micron: The Permittee shall conduct a performance test due before 07/12/2026 and every 60 months thereafter to measure emissions (lb/hr). 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 9. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.16.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 07/12/2026 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 9. 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 Notice of Compliance letter. 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

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	date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), 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]
6.16.3	Particulate Matter: The Permittee shall conduct a performance test due before 07/12/2026 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 9. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.16.4	Opacity: The Permittee shall conduct a performance test due before 07/12/2026 and every 60 months thereafter to measure opacity. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 9. 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 Notice of Compliance letter. 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. [40 CFR 60.302(c)(2), Minn. R. 7011.1005, subp. 2, Minn. R. 7011.1005, subp. 3(D), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C)]
STRU 10	**Grain Cleaning**
6.17.1	PM < 10 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60

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	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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 10. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.17.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 10. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.17.3	Particulate Matter: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. This permit contains short-term process throughput limits. Short-term

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	process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 10. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.17.4	Opacity: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure opacity. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 9 and the procedures in 40 CFR Section 60.11, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 10. 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 Notice of Compliance letter. 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. [40 CFR 60.302(c)(2), Minn. R. 7011.1005, subp. 2, Minn. R. 7011.1005, subp. 3(D), Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C)]
STRU 11	**Hammermill #1**
6.18.1	PM < 10 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 12. Worst-case conditions for STRU 11 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 12, as grain is not conveyed to emission units that vent to STRU 12 until emission units that vent to STRU 11 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C.

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	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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.18.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 12. Worst-case conditions for STRU 11 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 12, as grain is not conveyed to emission units that vent to STRU 12 until emission units that vent to STRU 11 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.18.3	Particulate Matter: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 12. Worst-case conditions for STRU 11 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 12, as grain is not conveyed to emission units that vent to STRU 12 until emission units that vent to STRU 11 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit

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	will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 12	**Hammermill #2**
6.19.1	PM < 10 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 12 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 13, as grain is not conveyed to emission units that vent to STRU 13 until emission units that vent to STRU 12 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.19.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 12 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 13, as grain is not conveyed to emission units that vent to STRU 13 until emission units that vent to STRU 12 are at

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	capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.19.3	Particulate Matter: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 12 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 13, as grain is not conveyed to emission units that vent to STRU 13 until emission units that vent to STRU 12 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 13	**Hammermill #3**
6.20.1	PM < 10 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must:

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	1. Operate any emission unit that vents to STRU 24. Worst-case conditions for STRU 13 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.20.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 24. Worst-case conditions for STRU 13 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.20.3	Particulate Matter: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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

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	202, or other method approved by MPCA in the performance test plan approval. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 24. Worst-case conditions for STRU 13 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 14	**Flour Receiver**
6.21.1	PM < 10 micron: The Permittee shall conduct a performance test due before 6/1/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 14. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.21.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 6/1/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan

Requirement number	Requirement and citation
	approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 14. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.21.3	Particulate Matter: The Permittee shall conduct a performance test due before 6/1/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 14. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 15	**RTO Bypass**
6.22.1	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 6/1/2028 and every 60 months thereafter to measure emissions VOC as mass. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 15. 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 Notice of Compliance letter.

Requirement number	Requirement and citation
	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 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.22.2	HAPs - Single: The Permittee shall conduct performance test due before 6/1/2028 and every 60 months to verify the emission factors for Acetaldehyde, Acrolein, Formaldehyde, and Methanol (lb/hr). The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this stack. If the VOC testing frequency is reset, the HAP testing frequency shall be reset to match. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 15. 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 Notice of Compliance letter. 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]
STRU 16	**RTO**
6.23.1	Nitrogen Oxides: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 06/01/2033 and every 120 months thereafter to verify the emission factor (lb/MMBtu). 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. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains process throughput limits. The process throughput limit will be defined by the operating rates sustained during the test, and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. During the performance testing, the Permittee must: 1. Vent dryers to STRU 16; 2. Direct syrup to the dryers; 3. Vent centrifuges to STRU 16 with no wetcake production; 4. Vent corn oil system to STRU 16; and 5. Vent the fluid bed cooler to the dryers.

Requirement number	Requirement and citation
	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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 2(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.2	Nitrogen Oxides: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2033 and every 120 months thereafter to verify the emission factor (lb/MMBtu). 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. The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains process throughput limits. The process throughput limit will be defined by the operating rates sustained during the test, and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. During the performance testing, the Permittee must: 1. Vent dryers to STRU 16; 2. Direct syrup to the dryers; 3. Vent centrifuges to STRU 16 with no wetcake production; 4. Vent corn oil system to STRU 16; and 5. Vent the fluid bed cooler to the dryers. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.3	Sulfur Dioxide: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2033 and every 120 months thereafter to verify the emission factor (lb/MMBtu). 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 6C, or other method approved by MPCA in the performance test plan approval. The performance test must be conducted at worst-case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 6C or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test, and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C.

Requirement number	Requirement and citation
	During the performance testing, the Permittee must: 1. Vent dryers to STRU 16; 2. Direct syrup to the dryers; 3. Vent centrifuges to STRU 16 with no wetcake production; 4. Vent corn oil system to STRU 16; and 5. Vent the fluid bed cooler to the dryers. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C)]
6.23.4	Sulfur Dioxide: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 06/01/2033 and every 120 months thereafter to verify the emission factor (lb/MMBtu). 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 6C, or other method approved by MPCA in the performance test plan approval. The performance test must be conducted at worst-case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 6C or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test, and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. During the performance testing, the Permittee must: 1. Vent dryers to STRU 16; 2. Direct syrup to the dryers; 3. Vent centrifuges to STRU 16 with no wetcake production; 4. Vent corn oil system to STRU 16; and 5. Vent the fluid bed cooler to the dryers. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C)]
6.23.5	PM < 10 micron: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan

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	approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), 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]
6.23.6	PM < 10 micron: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 08/10/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), 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]
6.23.7	PM < 2.5 micron: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 08/10/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter.

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	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. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), 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]
6.23.8	PM < 2.5 micron: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), 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]
6.23.9	Particulate Matter: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

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6.23.10	Particulate Matter: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 08/10/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.11	Carbon Monoxide: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 05/17/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.12	Carbon Monoxide: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure emissions. 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

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	operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.13	Nitrogen Oxides: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 05/17/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.14	Nitrogen Oxides: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.15	Volatile Organic Compounds: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 06/01/2028 and every 60 months thereafter to measure VOC as mass. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.16	HAPs - Single: The Permittee shall conduct a performance test while operating under STRU 16 AOS #1 - Normal Operation due before 6/1/2028 and every 60 months thereafter to verify the emission factors for Acetaldehyde, Acrolein, Formaldehyde, and Methanol (lb/hr). The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this stack. If the VOC testing frequency is reset, the HAP testing frequency shall be reset to match. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method, 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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

Requirement number	Requirement and citation
	date. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]
6.23.17	Volatile Organic Compounds: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2 - Scrubber Bypass due before 05/17/2028 and every 60 months thereafter to measure VOC as mass. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.23.18	HAPs - Single: The Permittee shall conduct a performance test while operating under STRU 16 AOS #2-Scrubber Bypass due before 05/17/2028 and every 60 months thereafter to verify the emission factors for Acetaldehyde, Acrolein, Formaldehyde, and Methanol (lb/hr). The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this stack. If the VOC testing frequency is reset, the HAP testing frequency shall be reset to match. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 16. 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 Notice of Compliance letter. 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. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 22	**Fluid Bed Cooling**

Requirement number	Requirement and citation
6.24.1	PM < 10 micron: The Permittee shall conduct a performance test due before 08/09/2024 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 22. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.24.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 08/09/2024 and every 60 months thereafter to measure emissions. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 22. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.24.3	Particulate Matter: The Permittee shall conduct a performance test due before 08/09/2024 and every 60 months thereafter to measure emissions. 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. The performance test shall be

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	performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 22. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.24.4	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 08/09/2024 and every 60 months thereafter to measure VOC as mass. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 22. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
6.24.5	HAPs - Single: The Permittee shall conduct a performance test due before 08/09/2024 and every 60 months thereafter to verify the emission factor for Acetaldehyde, Acrolein, Formaldehyde, and Methanol (lb/hr). The HAP emission factor verification must be concurrent with the VOC as mass testing conducted for this stack. If the VOC testing frequency is reset, the HAP testing frequency shall be reset to match. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix C. 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 STRU 22.

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	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 Notice of Compliance letter. 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]
STRU 24	**Hammermill #4**
6.25.1	PM < 10 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 11; 2. Operate any emission unit that vents to STRU 12; and 3. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 24 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 11, STRU 12, and STRU 13 prior to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 11, STRU 12, and STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.25.2	PM < 2.5 micron: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 11; 2. Operate any emission unit that vents to STRU 12; and

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	3. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 24 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 11, STRU 12, and STRU 13 prior to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 11, STRU 12, and STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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. R. 7017.2025, subp. 3(C), 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]
6.25.3	Particulate Matter: The Permittee shall conduct a performance test due before 06/01/2028 and every 60 months thereafter to measure emissions. 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. During performance testing, the Permittee must: 1. Operate any emission unit that vents to STRU 11; 2. Operate any emission unit that vents to STRU 12; and 3. Operate any emission unit that vents to STRU 13. Worst-case conditions for STRU 24 occur when the hammermill feed conveyor is transferring grain to emission units that vent to STRU 11, STRU 12, and STRU 13 prior to STRU 24, as grain is not conveyed to emission units that vent to STRU 24 until emission units that vent to STRU 11, STRU 12, and STRU 13 are at capacity. This permit contains short-term process throughput limits. The short-term process throughput limit will be defined by the operating rates sustained during the test and may be reset within a Notice of Compliance letter. Target process throughput rates are defined in Appendix C. 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 Notice of Compliance letter. 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 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 44	**Hammermill #5**
6.26.1	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.

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	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.26.2	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)]
6.26.3	PM < 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. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) 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 NOC/NOV letter. 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. 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. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. 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) & (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]
6.26.4	PM < 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. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) 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 NOC/NOV letter. 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. 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. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date

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	requirement but will reset future performance test due dates based on the most recent 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]
6.26.5	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. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) 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 NOC/NOV letter. 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. 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. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
TREA 25	**Hammermill 5 Baghouse**
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)]

7. Compliance schedule

This section of the permit contains the compliance schedule required by Minn. R. 7007.0500, subp. 2(K). You must complete the actions required in this section by the dates listed. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21.

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STRU 11	**Hammermill #1**
7.1.1	The Permittee shall increase the stack height of the Hammermill #1 stack(s) to at least 30 feet (9.14 m) above base elevation, due before 180 calendar days after Permit Issuance Date. [Corrective Action, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
STRU 12	**Hammermill #2**
7.2.1	The Permittee shall increase the stack height of the Hammermill #2 stack(s) to at least 30 feet (9.14 m) above base elevation, due before 180 calendar days after Permit Issuance Date. [Corrective Action, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
STRU 13	**Hammermill #3**
7.3.1	The Permittee shall increase the stack height of the Hammermill #3 stack(s) to at least 30 feet (9.14 m) above base elevation, due before 180 calendar days after Permit Issuance Date. [Corrective Action, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
STRU 24	**Hammermill #4**
7.4.1	The Permittee shall increase the stack height of the Hammermill #4 stack(s) to at least 30 feet (9.14 m) above base elevation, due before 180 calendar days after Permit Issuance Date. [Corrective Action, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]

8. 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 *The facility has one 175,000 Btu/hr kerosene space heater.*	PM <= 0.6 or 0.4 lb/MMBtu, depending on year constructed Opacity <= 20% with exceptions (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. *The facility has four 100,000 Btu/hr natural gas furnaces.*	PM <= 0.6 or 0.4, depending on year constructed Opacity <= 20% with exceptions (Minn. R. 7011.0515)
Minn. R. 7007.1300, subp. 3(C)(1)	Gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons *The facility has one 525-gallon gasoline storage tank.*	Check to see if Minn. R. 7011.1505, subp. 2(B)/1505, subp. 3(B) apply, if not PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D) *The facility has a quality assurance laboratory.*	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(E)	Brazing, soldering, torch-cutting, or welding equipment *The facility performs brazing, soldering, and welding for infrequent, miscellaneous tasks.*	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Appendix B. Subject item Data for Flexible Permitting

The tables below list equipment at the facility with flexibility provisions incorporated into the permit. The Permittee must maintain the information required within these tables for all existing, new, modified or replaced equipment for which flexibility provisions are available.

Table B1: Equipment with Flexibility Provisions Incorporated into the Permit (Part A)
STRU 9, 10, 11, 12, 13, 15, 16, 17, 24, 27, 44

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
9	receives from	1	80	1	EU001	Grain Receiving Pit #1	Material Handling Equipment	Schlagel	2020
9	receives from	2	80	1	EU002	DDGS Rail Loadout	Loading-Unloading Equipment	Schlagel	188
9	receives from	4	100	1	EU004	Grain Receiving Elevator #1	Elevator	Schlagel	42208
9	receives from	6	100	1	EU006	Grain Bin #1	Silo/Bin	GSI	NA
9	receives from	7	100	1	EU007	Grain Bin #2	Silo/Bin	GSI	NA
9	receives from	8	100	1	EU008	Grain Bin #3	Silo/Bin	GSI	NA
9	receives from	63	100	1	EU056	Grain Bin #4	Silo/Bin	Behlen	NA
9	receives from	64	100	1	EU057	Grain Bin #5	Silo/Bin	Behlen	NA
9	receives from	65	100	1	EU058	Grain Bin #6	Silo/Bin	Behlen	NA
9	receives from	66	100	1	EU059	Grain Bin #7	Silo/Bin	Behlen	NA
9	receives from	67	100	1	EU060	Belt Conveyor 2	Conveyor	Hi-Roller	Model 42
9	receives from	68	100	1	EU061	Belt Conveyor 3	Conveyor	Hi-Roller	Model 42
9	receives from	84	80	1		Grain Receiving Pit #2	Material Handling Equipment	Schlagel	2020
9	receives from	85	100	1		Grain Receiving Elevator #2	Elevator	Schlagel	42208
9	receives from	93	100	1		DDGS Reclaim Conveyor	Conveyor	Schlagel	12" Screw
9	receives from	94	100	1		DDGS Elevator	Elevator	Schlagel	42808
9	receives from	95	100	1		Bulk Weigher	Material Handling Equipment	Broin & Associates	NA
9	receives from	96	100	1		DDGS Conveyor	Conveyor	Schlagel	1818
9	receives from	97	100	1		Loadout Conveyor	Conveyor	Schlagel	1818
9	receives from	109	100	1	EU003	Belt Conveyor 1	Conveyor	Hi-Roller	Model 42
10	receives from	5	100	2	EU005	Bin Unload Conveyor #2	Conveyor	Hi-Roller	Model 18
10	receives from	9	100	2	EU009	Grain Scalper	Other Emission Unit	Law-Marot	C4-1260
10	receives from	10	100	2	EU010	Surge Bin	Silo/Bin	Friesen	16175
10	receives from	11	100	2	EU011	Grain Elevator	Elevator	Schlagel	30127

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
10	receives from	12	100	2	EU012	Grain Conveyor	Conveyor	Hi-Roller	Model 18
10	receives from	69	100	2	EU062	Bin Unload Conveyor #3	Conveyor	Hi-Roller	Model 18
10	receives from	86	100	2		Bin Unload Conveyor #1	Conveyor	Hi-Roller	Model 18
11	receives from	13	100	3	EU013	Hammermill 1	Milling Equipment	Roskamp-Champion	HM54-48
11	receives from	87	25	3		Mill Feed Conveyor	Conveyor	Schlagel	1214
11	receives from	87	25	4		Mill Feed Conveyor	Conveyor	Schlagel	1214
11	receives from	87	25	5		Mill Feed Conveyor	Conveyor	Schlagel	1214
11	receives from	87	25	15		Mill Feed Conveyor	Conveyor	Schlagel	1214
11	receives from	112	100	3		Mill #1 Conveyor	Conveyor	Roskamp-Champion	HM54-48
12	receives from	14	100	4	EU014	Hammermill 2	Milling Equipment	Roskamp-Champion	HM54-48
12	receives from	87	25	3		Mill Feed Conveyor	Conveyor	Schlagel	1214
12	receives from	87	25	4		Mill Feed Conveyor	Conveyor	Schlagel	1214
12	receives from	87	25	5		Mill Feed Conveyor	Conveyor	Schlagel	1214
12	receives from	87	25	15		Mill Feed Conveyor	Conveyor	Schlagel	1214
12	receives from	113	100	4		Mill #2 Conveyor	Conveyor	Roskamp-Champion	HM54-48
13	receives from	15	100	5	EU015	Hammermill 3	Milling Equipment	Roskamp-Champion	HM54-48
13	receives from	87	25	3		Mill Feed Conveyor	Conveyor	Schlagel	1214
13	receives from	87	25	4		Mill Feed Conveyor	Conveyor	Schlagel	1214
13	receives from	87	25	5		Mill Feed Conveyor	Conveyor	Schlagel	1214
13	receives from	87	25	15		Mill Feed Conveyor	Conveyor	Schlagel	1214
13	receives from	114	100	5		Mill #3 Conveyor	Conveyor	Roskamp-Champion	HM54-48
15	receives from	17	0	7	EU017	Fermentation Tank #1	Fermentation Equipment	Brown Tank	NA
15	receives from	17	0	24	EU017	Fermentation Tank #1	Fermentation Equipment	Brown Tank	NA
15	receives from	18	0	7	EU018	Fermentation Tank #2	Fermentation Equipment	Brown Tank	NA
15	receives from	18	0	24	EU018	Fermentation Tank #2	Fermentation Equipment	Brown Tank	NA
15	receives from	19	0	7	EU019	Fermentation Tank #3	Fermentation Equipment	Brown Tank	NA

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
15	receives from	19	0	24	EU019	Fermentation Tank #3	Fermentation Equipment	Brown Tank	NA
15	receives from	20	0	7	EU020	Fermentation Tank #4	Fermentation Equipment	Brown Tank	NA
15	receives from	20	0	24	EU020	Fermentation Tank #4	Fermentation Equipment	Brown Tank	NA
15	receives from	21	0	7	EU021	Beerwell Tank #1	Fermentation Equipment	Brown Tank	NA
15	receives from	21	0	24	EU021	Beerwell Tank #1	Fermentation Equipment	Brown Tank	NA
15	receives from	22	0	7	EU022	Beerwell Tank #2	Fermentation Equipment	Brown Tank	NA
15	receives from	22	0	24	EU022	Beerwell Tank #2	Fermentation Equipment	Brown Tank	NA
15	receives from	26	0	7	EU026	Slurry Tank	Mixing Equipment	A&B Process Systems Co	NA
15	receives from	26	0	24	EU026	Slurry Tank	Mixing Equipment	A&B Process Systems Co	NA
15	receives from	27	0	7	EU027	Yeast Propagation Tank	Fermentation Equipment	A&B Process Systems Co	NA
15	receives from	27	0	24	EU027	Yeast Propagation Tank	Fermentation Equipment	A&B Process Systems Co	NA
15	receives from	37	0	7	EU030	Beer Stripper	Stripping Equipment	A&B Process Systems Co	NA
15	receives from	37	0	24	EU030	Beer Stripper	Stripping Equipment	A&B Process Systems Co	NA
15	receives from	38	0	7	EU031	Rectifier	Distillation Equipment	A&B Process Systems Co	NA
15	receives from	38	0	24	EU031	Rectifier	Distillation Equipment	A&B Process Systems Co	NA
15	receives from	39	0	7	EU032	Side Stripper	Stripping Equipment	A&B Process Systems Co	NA
15	receives from	39	0	24	EU032	Side Stripper	Stripping Equipment	A&B Process Systems Co	NA
15	receives from	40	0	7	EU033	Evaporator #1	Dehydrator	Paget Equipment	NA
15	receives from	40	0	24	EU033	Evaporator #1	Dehydrator	Paget Equipment	NA
15	receives from	41	0	7	EU034	Molecular Sieve #1	Separation Equipment	Midwest Tank Co	NA
15	receives from	41	0	24	EU034	Molecular Sieve #1	Separation Equipment	Midwest Tank Co	NA
15	receives from	42	0	7	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
15	receives from	42	0	24	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
15	receives from	43	0	7	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505
15	receives from	43	0	24	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
15	receives from	44	0	7	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505
15	receives from	44	0	24	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505
15	receives from	45	0	7	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
15	receives from	45	0	24	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
15	receives from	46	0	7	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505
15	receives from	46	0	24	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505
15	receives from	62	0	7	EU055	Fermentation Tank #5	Fermentation Equipment	Advance Tank & Construction Co	NA
15	receives from	62	0	24	EU055	Fermentation Tank #5	Fermentation Equipment	Advance Tank & Construction Co	NA
15	receives from	90	0	7		Production Rundown Tank	Material Handling Equipment	Broin & Associates	NA
15	receives from	90	0	24		Production Rundown Tank	Material Handling Equipment	Broin & Associates	NA
15	receives from	91	0	7		Whole Stillage Tank	Material Handling Equipment	Broin & Associates	NA
15	receives from	91	0	24		Whole Stillage Tank	Material Handling Equipment	Broin & Associates	NA
15	receives from	102	0	7		Fermentation Tank #6	Fermentation Equipment	Advance Tank & Construction Co	NA
15	receives from	102	0	24		Fermentation Tank #6	Fermentation Equipment	Advance Tank & Construction Co	NA
15	receives from	110	0	7	EU028	Thin Stillage Tank	Material Handling Equipment	Brown Tank	NA
15	receives from	110	0	24	EU028	Thin Stillage Tank	Material Handling Equipment	Brown Tank	NA
15	receives from	118	0	7		Distillation Unit #1	Distillation Equipment	Custom	Custom
15	receives from	118	0	24		Distillation Unit #1	Distillation Equipment	Custom	Custom
15	receives from	119	0	7		Distillation Unit #2	Distillation Equipment	Custom	Custom
15	receives from	119	0	24		Distillation Unit #2	Distillation Equipment	Custom	Custom
15	receives from	120	0	7		Distillation Unit #3	Distillation Equipment	Custom	Custom
15	receives from	120	0	24		Distillation Unit #3	Distillation Equipment	Custom	Custom
15	receives from	121	0	7		Distillation Unit #4	Distillation Equipment	Custom	Custom

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
15	receives from	121	0	24		Distillation Unit #4	Distillation Equipment	Custom	Custom
15	receives from	122	0	7		Fermentation Tank #7	Fermentation Equipment	Advance Tank & Construction	NA
15	receives from	122	0	24		Fermentation Tank #7	Fermentation Equipment	Advance Tank & Construction	NA
15	receives from	123	0	7		Fermentation Tank #8	Fermentation Equipment	Advance Tank & Construction	NA
15	receives from	123	0	24		Fermentation Tank #8	Fermentation Equipment	Advance Tank & Construction	NA
15	receives from	139	100	7	EU033	Evaporator #2	Dehydrator	Paget Equipment	NA
15	receives from	139	100	24	EU033	Evaporator #2	Dehydrator	Paget Equipment	NA
15	receives from	140	100	7	EU033	Evaporator #3	Dehydrator	Paget Equipment	NA
15	receives from	140	100	24	EU033	Evaporator #3	Dehydrator	Paget Equipment	NA
15	receives from	141	100	7	EU033	Evaporator #4	Dehydrator	Paget Equipment	NA
15	receives from	141	100	24	EU033	Evaporator #4	Dehydrator	Paget Equipment	NA
15	receives from	142	100	7	EU034	Molecular Sieve #2	Separation Equipment	Midwest Tank Co	NA
15	receives from	142	100	24	EU034	Molecular Sieve #2	Separation Equipment	Midwest Tank Co	NA
15	receives from	143	100	7	EU034	Molecular Sieve #3	Separation Equipment	Midwest Tank Co	NA
15	receives from	143	100	24	EU034	Molecular Sieve #3	Separation Equipment	Midwest Tank Co	NA
15	receives from	144	100	7	EU034	Molecular Sieve #4	Separation Equipment	Midwest Tank Co	NA
15	receives from	144	100	24	EU034	Molecular Sieve #4	Separation Equipment	Midwest Tank Co	NA
STRU 16 Flexibility to add, replace and modify units controlled by the thermal oxidizer is subject to limits identified in the permit. Not all emission units that vent to STRU 16 may use the flexibility provisions.									
16	receives from	17	100	7	EU017	Fermentation Tank #1	Fermentation Equipment	Brown Tank	NA
16	receives from	17	100	24	EU017	Fermentation Tank #1	Fermentation Equipment	Brown Tank	NA
16	receives from	18	100	7	EU018	Fermentation Tank #2	Fermentation Equipment	Brown Tank	NA
16	receives from	18	100	24	EU018	Fermentation Tank #2	Fermentation Equipment	Brown Tank	NA
16	receives from	19	100	7	EU019	Fermentation Tank #3	Fermentation Equipment	Brown Tank	NA
16	receives from	19	100	24	EU019	Fermentation Tank #3	Fermentation Equipment	Brown Tank	NA
16	receives from	20	100	7	EU020	Fermentation Tank #4	Fermentation Equipment	Brown Tank	NA
16	receives from	20	100	24	EU020	Fermentation Tank #4	Fermentation Equipment	Brown Tank	NA
16	receives from	21	100	7	EU021	Beerwell Tank #1	Fermentation Equipment	Brown Tank	NA
16	receives from	21	100	24	EU021	Beerwell Tank #1	Fermentation Equipment	Brown Tank	NA

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
16	receives from	22	100	7	EU022	Beerwell Tank #2	Fermentation Equipment	Brown Tank	NA
16	receives from	22	100	24	EU022	Beerwell Tank #2	Fermentation Equipment	Brown Tank	NA
16	receives from	26	100	7	EU026	Slurry Tank	Mixing Equipment	A&B Process Systems Co	NA
16	receives from	26	100	24	EU026	Slurry Tank	Mixing Equipment	A&B Process Systems Co	NA
16	receives from	27	100	7	EU027	Yeast Propogation Tank	Fermentation Equipment	A&B Process Systems Co	NA
16	receives from	27	100	24	EU027	Yeast Propogation Tank	Fermentation Equipment	A&B Process Systems Co	NA
16	receives from	37	100	7	EU030	Beer Stripper	Stripping Equipment	A&B Process Systems Co	NA
16	receives from	37	100	24	EU030	Beer Stripper	Stripping Equipment	A&B Process Systems Co	NA
16	receives from	38	100	7	EU031	Rectifier	Distillation Equipment	A&B Process Systems Co	NA
16	receives from	38	100	24	EU031	Rectifier	Distillation Equipment	A&B Process Systems Co	NA
16	receives from	39	100	7	EU032	Side Stripper	Stripping Equipment	A&B Process Systems Co	NA
16	receives from	39	100	24	EU032	Side Stripper	Stripping Equipment	A&B Process Systems Co	NA
16	receives from	40	100	7	EU033	Evaporator #1	Dehydrator	Paget Equipment	NA
16	receives from	40	100	24	EU033	Evaporator #1	Dehydrator	Paget Equipment	NA
16	receives from	41	100	7	EU034	Molecular Sieve #1	Separation Equipment	Midwest Tank Co	NA
16	receives from	41	100	24	EU034	Molecular Sieve #1	Separation Equipment	Midwest Tank Co	NA
16	receives from	42	0	7	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
16	receives from	42	0	24	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
16	receives from	43	0	7	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505
16	receives from	43	0	24	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505
16	receives from	44	0	7	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505
16	receives from	44	0	24	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505
16	receives from	45	0	7	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
16	receives from	45	0	24	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
16	receives from	46	0	7	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
16	receives from	46	0	24	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505
16	receives from	62	100	7	EU055	Fermentation Tank #5	Fermentation Equipment	Advance Tank & Construction Co	NA
16	receives from	62	100	24	EU055	Fermentation Tank #5	Fermentation Equipment	Advance Tank & Construction Co	NA
16	receives from	90	100	7		Production Rundown Tank	Material Handling Equipment	Broin & Associates	NA
16	receives from	90	100	24		Production Rundown Tank	Material Handling Equipment	Broin & Associates	NA
16	receives from	91	100	7		Whole Stillage Tank	Material Handling Equipment	Broin & Associates	NA
16	receives from	91	100	24		Whole Stillage Tank	Material Handling Equipment	Broin & Associates	NA
16	receives from	102	100	7		Fermentation Tank #6	Fermentation Equipment	Advance Tank & Construction Co	NA
16	receives from	102	100	24		Fermentation Tank #6	Fermentation Equipment	Advance Tank & Construction Co	NA
16	receives from	104	100	24		Corn Oil System	Separation Equipment	GEA	RSE 220 & RSE 90
16	receives from	110	100	7	EU028	Thin Stillage Tank	Material Handling Equipment	Brown Tank	NA
16	receives from	110	100	24	EU028	Thin Stillage Tank	Material Handling Equipment	Brown Tank	NA
16	receives from	111	100	24	EU029	Syrup Tank	Material Handling Equipment	Brown Tank	NA
16	receives from	118	100	7		Distillation Unit #1	Distillation Equipment	Custom	Custom
16	receives from	118	100	24		Distillation Unit #1	Distillation Equipment	Custom	Custom
16	receives from	119	100	7		Distillation Unit #2	Distillation Equipment	Custom	Custom
16	receives from	119	100	24		Distillation Unit #2	Distillation Equipment	Custom	Custom
16	receives from	120	100	7		Distillation Unit #3	Distillation Equipment	Custom	Custom
16	receives from	120	100	24		Distillation Unit #3	Distillation Equipment	Custom	Custom
16	receives from	121	100	7		Distillation Unit #4	Distillation Equipment	Custom	Custom
16	receives from	121	100	24		Distillation Unit #4	Distillation Equipment	Custom	Custom
16	receives from	122	100	7		Fermentation Tank #7	Fermentation Equipment	Advance Tank & Construction	NA
16	receives from	122	100	24		Fermentation Tank #7	Fermentation Equipment	Advance Tank & Construction	NA

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
16	receives from	123	100	7		Fermentation Tank #8	Fermentation Equipment	Advance Tank & Construction	NA
16	receives from	123	100	24		Fermentation Tank #8	Fermentation Equipment	Advance Tank & Construction	NA
16	receives from	125	100	24		Centrifuge #6	Separation Equipment	Westfalia	CB-505
16	receives from	139	100	7	EU033	Evaporator #2	Dehydrator	Paget Equipment	NA
16	receives from	139	100	24	EU033	Evaporator #2	Dehydrator	Paget Equipment	NA
16	receives from	140	100	7	EU033	Evaporator #3	Dehydrator	Paget Equipment	NA
16	receives from	140	100	24	EU033	Evaporator #3	Dehydrator	Paget Equipment	NA
16	receives from	141	100	7	EU033	Evaporator #4	Dehydrator	Paget Equipment	NA
16	receives from	141	100	24	EU033	Evaporator #4	Dehydrator	Paget Equipment	NA
16	receives from	142	100	7	EU034	Molecular Sieve #2	Separation Equipment	Midwest Tank Co	NA
16	receives from	142	100	24	EU034	Molecular Sieve #2	Separation Equipment	Midwest Tank Co	NA
16	receives from	143	100	7	EU034	Molecular Sieve #3	Separation Equipment	Midwest Tank Co	NA
16	receives from	143	100	24	EU034	Molecular Sieve #3	Separation Equipment	Midwest Tank Co	NA
16	receives from	144	100	7	EU034	Molecular Sieve #4	Separation Equipment	Midwest Tank Co	NA
16	receives from	144	100	24	EU034	Molecular Sieve #4	Separation Equipment	Midwest Tank Co	NA
17	receives from	51	100	12	EU044	DDGS Silo (T-849)	Silo/Bin	Laidig/SMI	NA
24	receives from	60	100	15	EU053	Hammermill 4	Milling Equipment	Roskamp-Champion	HM54-48
24	receives from	87	25	3		Mill Feed Conveyor	Conveyor	Schlagel	1214
24	receives from	87	25	4		Mill Feed Conveyor	Conveyor	Schlagel	1214
24	receives from	87	25	5		Mill Feed Conveyor	Conveyor	Schlagel	1214
24	receives from	87	25	15		Mill Feed Conveyor	Conveyor	Schlagel	1214
24	receives from	115	100	15		Mill #4 Conveyor	Conveyor	Roskamp-Champion	HM54-48
27	receives from	42	100	7	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
27	receives from	42	100	24	EU035	Centrifuge #1	Separation Equipment	Westfalia	CB-505
27	receives from	43	100	7	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505
27	receives from	43	100	24	EU036	Centrifuge #2	Separation Equipment	Westfalia	CB-505
27	receives from	44	100	7	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505
27	receives from	44	100	24	EU037	Centrifuge #3	Separation Equipment	Westfalia	CB-505

Stack ID No.	Stack Relationship	Subject Item Id	% Flow	TREA ID No.	Emission Unit Designation	Emission Unit Description	Subject Item Type	Manufacturer	Model
27	receives from	45	100	7	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
27	receives from	45	100	24	EU038	Centrifuge #4	Separation Equipment	Westfalia	CB-505
27	receives from	46	100	7	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505
27	receives from	46	100	24	EU039	Centrifuge #5	Separation Equipment	Westfalia	CB-505
27	receives from	104	0	24		Corn Oil System	Separation Equipment	GEA	RSE 220 & RSE 90
27	receives from	125	0	24		Centrifuge #6	Separation Equipment	Westfalia	CB-505
44	receives from	127	100	25		Hammermill #5	Milling Equipment	Roakamp-Champion	HM54-48
44	receives from	128	100	25		Mill Conveyor #5	Conveyor	Roskamp-Champion	Roskamp-Champion

Table B2: Equipment with Flexibility Provisions Incorporated into the Permit (Part B)

Stack ID No.	SI ID	Emission Unit Description	Max Design Capacity	Material	Units	Commence Construction Date	Initial Startup Date	Status	Status Date	Date Modified
9	1	Grain Receiving Pit #1	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	2	DDGS Rail Loadout	225	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	4	Grain Receiving Elevator #1	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	6	Grain Bin #1	30000	Grain	bushel/hr	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	7	Grain Bin #2	30000	Grain	bushel/hr	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	8	Grain Bin #3	30000	Grain	bushel/hr	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
9	63	Grain Bin #4	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	64	Grain Bin #5	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	65	Grain Bin #6	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	66	Grain Bin #7	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	67	Belt Conveyor 2	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	68	Belt Conveyor 3	840	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
9	84	Grain Receiving Pit #2	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	85	Grain Receiving Elevator #2	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	93	DDGS Reclaim Conveyor	55	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	94	DDGS Elevator	240	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	

Stack ID No.	SI ID	Emission Unit Description	Max Design Capacity	Material	Units	Commence Construction Date	Initial Startup Date	Status	Status Date	Date Modified
9	95	Bulk Weigher	250	DDGS	cubic feet/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	96	DDGS Conveyor	240	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	97	Loadout Conveyor	240	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
9	109	Belt Conveyor 1	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	2/21/2018	
10	5	Bin Unload Conveyor #2	840	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
10	9	Grain Scalper	160	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
10	10	Surge Bin	160	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
10	11	Grain Elevator	160	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
10	12	Grain Conveyor	140	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
10	69	Bin Unload Conveyor #3	140	Grain	ton/hour	3/1/2007	9/17/2007	Active / Existing	9/17/2007	
10	86	Bin Unload Conveyor #1	8199	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
11	13	Hammermill 1	24	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
11	87	Mill Feed Conveyor	3500	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
11	112	Mill #1 Conveyor	32	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	4/2/2018	
12	14	Hammermill 2	24	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
12	87	Mill Feed Conveyor	3500	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
12	113	Mill #2 Conveyor	32	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	4/2/2018	
13	15	Hammermill 3	24	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
13	87	Mill Feed Conveyor	3500	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
13	114	Mill #3 Conveyor	32	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	4/2/2018	
14	16	Flour Receiver	128	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
14	126	Flour Receiver	160	Grain	ton/hour	TBD	TBD	Active / Existing	1/22/2020	
14	88	Flour Conveyor	3500	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
14	89	Flour Conveyor	40	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
15	17	Fermentation Tank #1	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	18	Fermentation Tank #2	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	19	Fermentation Tank #3	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	

Stack ID No.	SI ID	Emission Unit Description	Max Design Capacity	Material	Units	Commence Construction Date	Initial Startup Date	Status	Status Date	Date Modified
15	20	Fermentation Tank #4	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	21	Beerwell Tank #1	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	22	Beerwell Tank #2	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	26	Slurry Tank	48000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	27	Yeast Propogation Tank	20000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	37	Beer Stripper	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	38	Rectifier	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	39	Side Stripper	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	40	Evaporator #1	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	41	Molecular Sieve #1	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	42	Centrifuge #1	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	43	Centrifuge #2	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	44	Centrifuge #3	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	45	Centrifuge #4	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	46	Centrifuge #5	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	62	Fermentation Tank #5	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	90	Production Rundown Tank	192500	Beer	gallon/each	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
15	91	Whole Stillage Tank	20000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
15	102	Fermentation Tank #6	60000	Material	gallon/hour	3/4/2019	5/19/2019	Active / Existing	1/22/2018	
15	110	Thin Stillage Tank	460000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	2/21/2018	
15	118	Distillation Unit #1	3750	Beer	gallon/minute	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
15	119	Distillation Unit #2	3750	Beer	gallon/minute	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
15	120	Distillation Unit #3	71100	Ethanol	lb/hour	1/1/2016	7/1/2017	Active / Existing	5/15/2018	
15	121	Distillation Unit #4	70400	Ethanol	lb/hour	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
15	122	Fermentation Tank #7	60000	Beer	gallon/minute	TBD	TBD	Active / Existing	1/22/2020	
15	123	Fermentation Tank #8	60000	Beer	gallon/minute	TBD	TBD	Active / Existing	1/22/2020	
15	125	Centrifuge #6	100	Beer	gallon/hour	TBD	TBD	Active / Existing	1/22/2020	

Stack ID No.	SI ID	Emission Unit Description	Max Design Capacity	Material	Units	Commence Construction Date	Initial Startup Date	Status	Status Date	Date Modified
15	139	Evaporator #2	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	140	Evaporator #3	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	141	Evaporator #4	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	142	Molecular Sieve #2	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	143	Molecular Sieve #3	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
15	144	Molecular Sieve #4	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	17	Fermentation Tank #1	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	18	Fermentation Tank #2	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	19	Fermentation Tank #3	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	20	Fermentation Tank #4	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	21	Beerwell Tank #1	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	22	Beerwell Tank #2	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	26	Slurry Tank	48000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	27	Yeast Propagation Tank	20000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	37	Beer Stripper	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	38	Rectifier	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	39	Side Stripper	60000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	40	Evaporator #1	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	41	Molecular Sieve #1	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	42	Centrifuge #1	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	43	Centrifuge #2	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	44	Centrifuge #3	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	45	Centrifuge #4	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	46	Centrifuge #5	100	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	62	Fermentation Tank #5	60000	Material	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	90	Production Rundown Tank	192500	Beer	gallon/each	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
16	91	Whole Stillage Tank	20000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	

Stack ID No.	SI ID	Emission Unit Description	Max Design Capacity	Material	Units	Commence Construction Date	Initial Startup Date	Status	Status Date	Date Modified
16	102	Fermentation Tank #6	60000	Material	gallon/hour	3/4/2019	5/19/2019	Active / Existing	1/22/2018	
16	104	Corn Oil System	85	Material	gallon/minute	11/1/2011	4/1/2012	Active / Existing	1/22/2018	
16	110	Thin Stillage Tank	460000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	2/21/2018	
16	111	Syrup Tank	61000	Material	gallon/each	7/1/2004	6/1/2005	Active / Existing	2/21/2018	
16	118	Distillation Unit #1	3750	Beer	gallon/minute	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
16	119	Distillation Unit #2	3750	Beer	gallon/minute	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
16	120	Distillation Unit #3	71100	Ethanol	lb/hour	1/1/2016	7/1/2017	Active / Existing	5/15/2018	
16	121	Distillation Unit #4	70400	Ethanol	lb/hour	7/1/2004	6/1/2005	Active / Existing	5/15/2018	
16	122	Fermentation Tank #7	60000	Beer	gallon/minute	TBD	TBD	Active / Existing	1/22/2020	
16	123	Fermentation Tank #8	60000	Beer	gallon/minute	TBD	TBD	Active / Existing	1/22/2020	
16	125	Centrifuge #6	100	Beer	gallon/hour	TBD	TBD	Active / Existing	1/22/2020	
16	139	Evaporator #2	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	140	Evaporator #3	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	141	Evaporator #4	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	142	Molecular Sieve #2	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	143	Molecular Sieve #3	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
16	144	Molecular Sieve #4	64000	Beer	gallon/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
17	51	DDGS Silo (T-849)	30	DDGS	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
18	101	Fluid Bed Receiver	96	DDGS	ton/hour	7/1/2004	6/1/2005	Active/ Existing	1/22/2018	
24	60	Hammermill 4	24	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	6/1/2005	
24	87	Mill Feed Conveyor	3500	Grain	bushel/hour	7/1/2004	6/1/2005	Active / Existing	1/22/2018	
24	115	Mill #4 Conveyor	24	Grain	ton/hour	7/1/2004	6/1/2005	Active / Existing	4/2/2018	
44	127	Hammermill #5	32	Grain	ton/hour	TBD	TBD	Active / Existing	1/22/2020	
44	128	Mill Conveyor #5	32	Grain	ton/hour	TBD	TBD	Active / Existing	1/22/2020	

Table B3: Control Equipment with Flexibility Provisions Incorporated into the Permit

SI ID	SI Type Code	Subject Item Type	Mfg.	Model	Pollutants controlled	Capture Efficiency	Destruction Efficiency	Constructed Date	Status Description	Status Date
1	18	018-Fabric Filter - Low	MAC	144MCF153	Particulate Matter	100	99.8	7/1/2004	Active / Existing	1/22/2018

SI ID	SI Type Code	Subject Item Type	Mfg.	Model	Pollutants controlled	Capture Efficiency	Destruction Efficiency	Constructed Date	Status Description	Status Date
		Temp, T<180 Degrees F								
1	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	144MCF153	PM < 2.5 micron	100	97.8	7/1/2004	Active / Existing	1/22/2018
1	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	144MCF153	PM < 10 micron	100	99.6	7/1/2004	Active / Existing	1/22/2018
2	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	72AVS36	Particulate Matter	100	99.8	7/1/2004	Active / Existing	1/22/2018
2	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	72AVS36	PM < 2.5 micron	100	98.1	7/1/2004	Active / Existing	1/22/2018
2	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	72AVS36	PM < 10 micron	100	99.7	7/1/2004	Active / Existing	1/22/2018
3	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	Particulate Matter	100	98.7	7/1/2004	Active / Existing	1/22/2018
3	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 2.5 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
3	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 10 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
4	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	Particulate Matter	100	98.7	7/1/2004	Active / Existing	1/22/2018
4	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 2.5 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
4	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 10 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
5	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	Particulate Matter	100	98.7	7/1/2004	Active / Existing	1/22/2018
5	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 2.5 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
5	18	018-Fabric Filter - Low	MAC	96LST100 Style II	PM < 10 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018

SI ID	SI Type Code	Subject Item Type	Mfg.	Model	Pollutants controlled	Capture Efficiency	Destruction Efficiency	Constructed Date	Status Description	Status Date
		Temp, T<180 Degrees F								
7	1	001-Wet Scrubber - High Efficiency	A&B Process Systems	T-316	HAPs - Total	100	50	7/1/2004	Active / Existing	1/22/2018
7	1	001-Wet Scrubber - High Efficiency	A&B Process Systems	T-316	Volatile Organic Compounds	100	95	7/1/2004	Active / Existing	1/22/2018
11	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	132LST270 Style III	PM	100	99	7/1/2004	Active / Existing	1/22/2018
11	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	132LST270 Style III	PM < 2.5	100	93	7/1/2004	Active / Existing	1/22/2018
11	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	132LST270 Style III	PM < 10	100	93	7/1/2004	Active / Existing	1/22/2018
12	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96ST49	PM	100	99	7/1/2004	Active / Existing	1/22/2018
12	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96ST49	PM < 2.5	100	93	7/1/2004	Active / Existing	1/22/2018
12	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96ST49	PM < 10	100	93	7/1/2004	Active / Existing	1/22/2018
14	23	023-Flaring	MAC	NA	HAPs - Total	99.2	98	7/1/2004	Active / Existing	1/22/2018
14	23	023-Flaring	MAC	NA	Volatile Organic Compounds	99.2	98	7/1/2004	Active / Existing	1/22/2018
15	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	Particulate Matter	100	98.7	7/1/2004	Active / Existing	1/22/2018
15	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 2.5 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
15	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST100 Style II	PM < 10 micron	100	98.6	7/1/2004	Active / Existing	1/22/2018
25	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST10	Particulate Matter	100	99.4	TBD	Active / Existing	1/22/2020

SI ID	SI Type Code	Subject Item Type	Mfg.	Model	Pollutants controlled	Capture Efficiency	Destruction Efficiency	Constructed Date	Status Description	Status Date
25	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST10	PM < 2.5 micron	100	99.4	TBD	Active / Existing	1/22/2020
25	18	018-Fabric Filter - Low Temp, T<180 Degrees F	MAC	96LST10	PM < 10 micron	100	99.4	TBD	Active / Existing	1/22/2020

Table B4: Stacks with Flexibility Provisions Incorporated into the Permit

Stack ID No.	SI Description	Stack Height (ft)	Stack Diameter (ft)	Stack Flow Rate (dscfm)	Discharge Temp (F)	Discharge Direction
15	Scrubber Stack (RTO Bypass)	85	2	8000	60	Upwards with no cap

Appendix C. Performance Test Recordkeeping Items and Test Methods

Table C1: Performance Test Recordkeeping Items

Subject Item	Description	Performance Test Process Parameters	Target Short-term Process Rate	Control Equipment Operating Parameters
COMG 14: EQUI 13 EQUI 14 EQUI 15 EQUI 60 EQUI 127	Hammermills #1 - #5	Grain throughput (ton/hr avg of the combined 3-hr block avg based on bulk weigh scale); or Grain throughput (ton/hr avg of the combined 3-hr block avg based on slurry density meter)	125.40 ton/hr; or 119.80 ton/hr	TREA 3, 4, 5, 15, and 25: 0.1 ≤ ΔP ≤ 6.0 inches water column
STRU 9	Grain Receiving	Grain Received (ton/hr 3-hr block avg based on grain receipts)	752.53 ton/hr	TREA 1: 0.1 ≤ ΔP ≤ 6.0 inches water column
		DDGS Loaded (ton/hr 3-hr block avg based on DDGS bulkweigher)	225 ton/hr	
STRU 10	Grain Handling	Grain throughput (ton/hr 3-hr block avg based on bulk weigh scale); or Grain throughput (ton/hr 3-hr block avg based on slurry density meter)	121.10 ton/hr; or 108.80 ton/hr	TREA 2: 0.1 ≤ ΔP ≤ 6.0 inches water column
STRU 14	Flour Receiver	Grain throughput (ton/hr 3-hr block avg based on bulk weigh scale); or Grain throughput (ton/hr 3-hr block avg based on slurry density meter)	117.50 ton/hr; or 108.10 ton/hr	EQUI 16: 0.1 ≤ ΔP ≤ 6.0 inches water column; or EQUI 126: 0.1 ≤ ΔP ≤ 6.0 inches water column
STRU 15	Scrubber Stack (RTO bypass)	Beer Feed Rate (gal/min 3-hr block avg)	849.90 gal/min	TREA 7: Scrubber water flow rate ≥ 40.0 gal/min when venting to RTO; or Scrubber water flow rate ≥ 44.0 gal/min when NOT venting to RTO Scrubber Pressure Drop 0.1 ≤ ΔP ≤ 10.0 inches water column
		Record slurry feed rate to show pre-fermentation equipment is operating, and verify that all fermenters are in operation		
		HAP test chemicals	Acetaldehyde Acrolein Formaldehyde Methanol	
STRU 16 (AOS #1 – Normal Operation)	RTO AOS #1 Normal Operation	Beer Feed Rate (gal/min 3-hr block avg)	851.80 gal/min	TREA 24: Combustion chamber outlet T ≥ 1674°F TREA 7: 0.1 ≤ ΔP ≤ 10.0 inches water column Scrubber water flow rate ≥ 40.0 gal/min
		Record slurry feed rate to show pre-fermentation equipment is operating, and verify that all fermenters are in operation		
		HAP test chemicals	Acetaldehyde Acrolein Formaldehyde Methanol	
STRU 16 (AOS #2 –	RTO AOS #2 Scrubber Bypass	Beer Feed Rate (gal/min 3-hr block avg)	864.3 gal/min	TREA 24: Combustion chamber outlet T ≥ 1700°F
		Record slurry feed rate to show pre-fermentation equipment is operating, and verify that all fermenters are in operation		

Scrubber bypass)		HAP test chemicals	Acetaldehyde Acrolein Formaldehyde Methanol	
STRU 22	Fluid Bed Cooler	Beer Feed Rate (gal/min 3-hr block avg)	863.9 gal/min	TREA 11: 0.1 ≤ ΔP ≤ 6.0 inches water column
		HAP test chemicals	Acetaldehyde Acrolein Formaldehyde Methanol	
EQUI 56	Diesel Generator 1	None	None	TREA 21: 0.83 ≤ ΔP ≤ 4.83 inches water column; 450°F ≤ catalyst inlet T ≤ 1350°F
EQUI 57	Diesel Generator 2	None	None	TREA 22: 0.33 ≤ ΔP ≤ 4.33 inches water column; 450°F ≤ catalyst inlet T ≤ 1350°F
EQUI 58	Diesel Generator 3	None	None	TREA 23: 0.0 ≤ ΔP ≤ 4.0 inches water column; 450°F ≤ catalyst inlet T ≤ 1350°F

Table C2: EPA Performance Test Methods

Subject Item	**Description**	**Pollutants Tested and Test Method** (unless alternative method is approved by MPCA is the performance test plan approval)
STRU 9	Grain Receiving	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202 Opacity: Method 9
STRU 10	Grain Handling	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202 Opacity: Method 9
STRU 11	Hammermill #1	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202
STRU 12	Hammermill #2	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202
STRU 13	Hammermill #3	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202
STRU 14	Flour Receiver	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202
STRU 15	Scrubber (RTO Bypass)	VOC total mass: Method 25A in addition to Method 18 or 320 HAP: Method 18 or 320
STRU 16	RTO	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202

		$PM_{2.5}$: Methods 201A and 202 VOC total mass: Method 25A in addition to Method 18 or 320 HAP: Method 18 or 320 NO_x: Methods 19 and 7E CO: Method 10 SO_2: Method 6C
STRU 16	RTO (Scrubber bypass)	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202 VOC total mass: Method 25A in addition to Method 18 or 320 HAP: Method 18 or 320 NO_x: Methods 19 and 7E CO: Method 10 SO_2: Method 6C
STRU 22	Fluid Bed Cooler	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202 VOC total mass: Method 25A in addition to Method 18 or 320 HAP: Method 18 or 320
STRU 23 EQUI 56 TREA 21	Diesel Generator 1	CO: Method 10
STRU 23 EQUI 57 TREA 22	Diesel Generator 2	CO: Method 10
STRU 23 EQUI 58 TREA 23	Diesel Generator 3	CO: Method 10
STRU 24	Hammermill #4	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202
STRU 44	Hammermill #5	PM: Methods 5 and 202 PM_{10}: Methods 201A and 202 $PM_{2.5}$: Methods 201A and 202

Appendix D. Modelling Parameters

Table D-1: Modeling Parameters Point Sources

						Easting	Northing										
Permit	AERMOD	Pollutant	Averaging Time	Operating scenario	Release_Type	X1	Y1	Base_Elev	Emission_Rate	Emission_Rate	Height	Exit_Temp	Exit_Vel	Diam	Flow rate	Description	SO EMISFACT Description
ID	ID			#		[m]	[m]	[m]	[lb/hr]	[g/sec]	[m]	[K]	[m/s]	[m]	[ACFM]		
STRU9	LAKSTRU9	PM10	24-hour	1	POINT	397,878.113	4,883,696.963	301.8	0.60	7.598E-02	25.91	0.00	16.85	0.91	23,450	Grain Handling Baghouse	
STRU10	LAKSTRU10	PM10	24-hour	1	POINTHOR	397,878.421	4,883,765.859	301.8	0.11	1.350E-02	20.73	0.00	16.17	0.30	2,500	Grain Cleaning Baghouse	
NA	LAKHM1	PM10	24-hour	1	POINT	397,883.120	4,883,769.470	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 1	
NA	LAKHM2	PM10	24-hour	1	POINT	397,881.950	4,883,773.610	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 2	
NA	LAKHM3	PM10	24-hour	1	POINT	397,880.636	4,883,777.572	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 3	
NA	LAKHM4	PM10	24-hour	1	POINT	397,879.689	4,883,781.240	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 4	
NA	LAKHM5	PM10	24-hour	1	POINT	397,878.806	4,883,784.926	301.8	0.15	1.944E-02	9.14	0.00	20.32	0.60	12,000	Hammermill 5	
STRU14	LAKSTRU14	PM10	24-hour	1	POINTHOR	397,880.550	4,883,851.230	301.81	0.18	2.322E-02	18.29	0.00	27.81	0.30	4,300	Flour Receiving	
STRU16	LAKSTRU16	PM10	24-hour	1	POINT	397,849.250	4,883,851.670	301.82	13.00	1.638E+00	30.48	455.37	16.86	2.03	116,000	RTO Exhaust Stack	
STRU17	LAKSTRU17	PM10	24-hour	1	POINTHOR	397,904.409	4,883,754.426	301.8	0.21	2.700E-02	34.14	0.00	14.36	0.46	5,000	DDGS Silo	
STRU19	LAKSTRU19	PM10	24-hour	1	POINT	397,829.200	4,883,857.700	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 1	
STRU22	LAKSTRU22	PM10	24-hour	1	POINT	397,842.390	4,883,887.610	301.8	1.31	1.646E-01	21.34	310.93	18.25	0.91	25,400	Fluid Bed Cooling	
STRU23	LAKSTRU23	PM10	24-hour	1	POINT	397,822.830	4,883,841.840	301.8	5.85	7.377E-01	30.48	722.04	9.49	1.83	52,800	Generators 1, 2, and 3	Modeled based on MPCA guidance on Peak Shaving Generators
STRU25	LAKSTRU25	PM10	24-hour	1	POINT	397,837.480	4,883,857.470	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 2	
FUGI1	LAKFUGI1A	PM10	24-hour	1	POINT	397,880.110	4,884,036.050	301.8	0.25	3.091E-02	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1B	PM10	24-hour	1	POINT	397,880.110	4,884,024.770	301.8	0.25	3.091E-02	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1C	PM10	24-hour	1	POINT	397,879.330	4,884,013.500	301.8	0.25	3.091E-02	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
STRU9	LAKSTRU9	PM2.5	24-hour	1	POINT	397,878.113	4,883,696.963	301.8	0.60	7.598E-02	25.91	0.00	16.85	0.91	23,450	Grain Handling Baghouse	
STRU10	LAKSTRU10	PM2.5	24-hour	1	POINTHOR	397,878.421	4,883,765.859	301.8	0.11	1.350E-02	20.73	0.00	16.17	0.30	2,500	Grain Cleaning Baghouse	
NA	LAKHM1	PM2.5	24-hour	1	POINT	397,883.120	4,883,769.470	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 1	
NA	LAKHM2	PM2.5	24-hour	1	POINT	397,881.950	4,883,773.610	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 2	
NA	LAKHM3	PM2.5	24-hour	1	POINT	397,880.636	4,883,777.572	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 3	
NA	LAKHM4	PM2.5	24-hour	1	POINT	397,879.689	4,883,781.240	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 4	
NA	LAKHM5	PM2.5	24-hour	1	POINT	397,878.806	4,883,784.926	301.8	0.15	1.944E-02	9.14	0.00	20.32	0.60	12,000	Hammermill 5	
STRU14	LAKSTRU14	PM2.5	24-hour	1	POINTHOR	397,880.550	4,883,851.230	301.81	0.18	2.322E-02	18.29	0.00	27.81	0.30	4,300	Flour Receiving	
STRU16	LAKSTRU16	PM2.5	24-hour	1	POINT	397,849.250	4,883,851.670	301.82	13.00	1.638E+00	30.48	455.37	16.86	2.03	116,000	RTO Exhaust Stack	
STRU17	LAKSTRU17	PM2.5	24-hour	1	POINTHOR	397,904.409	4,883,754.426	301.8	0.21	2.700E-02	34.14	0.00	14.36	0.46	5,000	DDGS Silo	
STRU19	LAKSTRU19	PM2.5	24-hour	1	POINT	397,829.200	4,883,857.700	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 1	
STRU22	LAKSTRU22	PM2.5	24-hour	1	POINT	397,842.390	4,883,887.610	301.8	1.31	1.646E-01	21.34	310.93	18.25	0.91	25,400	Fluid Bed Cooling	
STRU23	LAKSTRU23	PM2.5	24-hour	1	POINT	397,822.830	4,883,841.840	301.8	5.85	7.377E-01	30.48	722.04	9.49	1.83	52,800	Generators 1, 2, and 3	Modeled based on MPCA guidance on Peak Shaving Generators
STRU25	LAKSTRU25	PM2.5	24-hour	1	POINT	397,837.480	4,883,857.470	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 2	
FUGI1	LAKFUGI1A	PM2.5	24-hour	1	POINT	397,880.110	4,884,036.050	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1B	PM2.5	24-hour	1	POINT	397,880.110	4,884,024.770	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1C	PM2.5	24-hour	1	POINT	397,879.330	4,884,013.500	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
STRU9	LAKSTRU9	PM2.5	Annual	1	POINT	397,878.113	4,883,696.963	301.8	0.60	7.598E-02	25.91	0.00	16.85	0.91	23,450	Grain Handling Baghouse	
STRU10	LAKSTRU10	PM2.5	Annual	1	POINTHOR	397,878.421	4,883,765.859	301.8	0.11	1.350E-02	20.73	0.00	16.17	0.30	2,500	Grain Cleaning Baghouse	
NA	LAKHM1	PM2.5	Annual	1	POINT	397,883.120	4,883,769.470	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 1	
NA	LAKHM2	PM2.5	Annual	1	POINT	397,881.950	4,883,773.610	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 2	
NA	LAKHM3	PM2.5	Annual	1	POINT	397,880.636	4,883,777.572	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 3	
NA	LAKHM4	PM2.5	Annual	1	POINT	397,879.689	4,883,781.240	301.8	0.12	1.555E-02	9.14	0.00	16.26	0.60	9,600	Hammermill 4	
NA	LAKHM5	PM2.5	Annual	1	POINT	397,878.806	4,883,784.926	301.8	0.15	1.944E-02	9.14	0.00	20.32	0.60	12,000	Hammermill 5	
STRU14	LAKSTRU14	PM2.5	Annual	1	POINTHOR	397,880.550	4,883,851.230	301.81	0.18	2.322E-02	18.29	0.00	27.81	0.30	4,300	Flour Receiving	
STRU16	LAKSTRU16	PM2.5	Annual	1	POINT	397,849.250	4,883,851.670	301.82	13.04	1.643E+00	30.48	455.37	16.86	2.03	116,000	RTO Exhaust Stack	
STRU17	LAKSTRU17	PM2.5	Annual	1	POINTHOR	397,904.409	4,883,754.426	301.8	0.21	2.700E-02	34.14	0.00	14.36	0.46	5,000	DDGS Silo	
STRU19	LAKSTRU19	PM2.5	Annual	1	POINT	397,829.200	4,883,857.700	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 1	
STRU22	LAKSTRU22	PM2.5	Annual	1	POINT	397,842.390	4,883,887.610	301.8	1.31	1.646E-01	21.34	310.93	18.25	0.91	25,400	Fluid Bed Cooling	
STRU23	LAKSTRU23	PM2.5	Annual	1	POINT	397,822.830	4,883,841.840	301.8	5.85	7.377E-01	30.48	722.04	9.49	1.83	52,800	Generators 1, 2, and 3	Modeled based on MPCA guidance on Peak Shaving Generators
STRU25	LAKSTRU25	PM2.5	Annual	1	POINT	397,837.480	4,883,857.470	301.81	0.75	9.388E-02	22.86	477.59	9.70	1.22	24,000	Boiler 2	

FUGI1	LAKFUGI1A	PM2.5	Annual	1	POINT	397,880.110	4,884,036.050	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1B	PM2.5	Annual	1	POINT	397,880.110	4,884,024.770	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	
FUGI1	LAKFUGI1C	PM2.5	Annual	1	POINT	397,879.330	4,884,013.500	301.8	8.51E-04	1.072E-04	10.67	309.82	7.66	7.32	681,850	Cooling Tower Cell	

Table D-*2*: Modeled Parameters Volume Sources

						Easting	Northing					Lateral dimension	Vertical dimension			
Permit	AERMOD	Pollutant	Averaging time	Operating scenario	Scalar/Variable emissions_type	X1	Y1	Base_Elev	Emission_Rate	Emission_Rate	Height	SigmaY	SigmaZ	Length_X		
ID	ID					[m]	[m]	[m]	(lb/hr)	(g/sec)	[m]	[m]	[m]	[m]	Description	SO EMISFACT Description
EQUI80 & EQUI99	GRREC1	PM10	24-hour	1	HROFDY	397,889.095	4,883,734.130	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC2	PM10	24-hour	1	HROFDY	397,890.533	4,883,729.337	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC3	PM10	24-hour	1	HROFDY	397,891.836	4,883,724.777	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC4	PM10	24-hour	1	HROFDY	397,893.139	4,883,719.752	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC5	PM10	24-hour	1	HROFDY	397,859.255	4,883,726.417	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC6	PM10	24-hour	1	HROFDY	397,860.693	4,883,721.625	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC7	PM10	24-hour	1	HROFDY	397,861.996	4,883,717.065	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC8	PM10	24-hour	1	HROFDY	397,863.299	4,883,712.039	301.8	1.62E-01	2.04E-02	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									1.30E+00	**1.63E-01**						
EQUI52	EQUI521	PM10	24-hour	1	NA	397,889.095	4,883,734.130	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI522	PM10	24-hour	1	NA	397,890.533	4,883,729.337	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured	

															Emissions	
EQUI52	EQUI523	PM10	24-hour	1	NA	397,891.836	4,883,724.777	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI524	PM10	24-hour	1	NA	397,893.139	4,883,719.752	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI525	PM10	24-hour	1	NA	397,859.255	4,883,726.417	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI526	PM10	24-hour	1	NA	397,860.693	4,883,721.625	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI527	PM10	24-hour	1	NA	397,861.996	4,883,717.065	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI528	PM10	24-hour	1	NA	397,863.299	4,883,712.039	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
									2.40E-02	**3.02E-03**						
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD1	PM10	24-hour	1	HROFDY	397,889.095	4,883,734.130	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD2	PM10	24-hour	1	HROFDY	397,890.533	4,883,729.337	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD3	PM10	24-hour	1	HROFDY	397,891.836	4,883,724.777	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD4	PM10	24-hour	1	HROFDY	397,893.139	4,883,719.752	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD5	PM10	24-hour	1	HROFDY	397,859.255	4,883,726.417	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD6	PM10	24-hour	1	HROFDY	397,860.693	4,883,721.625	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD7	PM10	24-hour	1	HROFDY	397,861.996	4,883,717.065	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD8	PM10	24-hour	1	HROFDY	397,863.299	4,883,712.039	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									2.38E-01	**3.00E-02**						
Insignificant Space Heating	LAKHEAT1	PM10	24-hour	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT2	PM10	24-hour	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT3	PM10	24-hour	1	NA	398,010.683	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT4	PM10	24-hour	1	NA	398,010.680	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT5	PM10	24-hour	1	NA	398,019.555	4,883,898.514	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT6	PM10	24-hour	1	NA	398,130.660	4,883,793.728	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
									5.51E-03	**6.95E-04**						
FUGI3	GRECRD001	PM10	24-hour	1	HROFDY	398,025.500	4,883,809.884	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD002	PM10	24-hour	1	HROFDY	398,025.759	4,883,819.881	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD003	PM10	24-hour	1	HROFDY	398,026.018	4,883,829.878	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD004	PM10	24-hour	1	HROFDY	398,026.277	4,883,839.874	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD005	PM10	24-hour	1	HROFDY	398,026.536	4,883,849.871	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD006	PM10	24-hour	1	HROFDY	398,026.795	4,883,859.868	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 007	PM10	24-hour	1	HROFDY	398,027.054	4,883,869.864	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 008	PM10	24-hour	1	HROFDY	398,027.313	4,883,879.861	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of

																operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 009	PM10	24-hour	1	HROFDY	398,027.572	4,883,889.858	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 010	PM10	24-hour	1	HROFDY	398,027.831	4,883,899.854	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 011	PM10	24-hour	1	HROFDY	398,028.090	4,883,909.851	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 012	PM10	24-hour	1	HROFDY	398,028.349	4,883,919.848	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 013	PM10	24-hour	1	HROFDY	398,028.608	4,883,929.844	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 014	PM10	24-hour	1	HROFDY	398,027.095	4,883,939.416	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 015	PM10	24-hour	1	HROFDY	398,022.332	4,883,948.209	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 016	PM10	24-hour	1	HROFDY	398,015.598	4,883,955.189	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 017	PM10	24-hour	1	HROFDY	398,007.233	4,883,960.669	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 018	PM10	24-hour	1	HROFDY	397,998.454	4,883,964.796	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 019	PM10	24-hour	1	HROFDY	397,988.455	4,883,964.950	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECRD 020	PM10	24-hour	1	HROFDY	397,978.456	4,883,965.104	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 021	PM10	24-hour	1	HROFDY	397,968.457	4,883,965.257	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 022	PM10	24-hour	1	HROFDY	397,958.458	4,883,965.411	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 023	PM10	24-hour	1	HROFDY	397,948.460	4,883,965.565	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 024	PM10	24-hour	1	HROFDY	397,938.461	4,883,965.719	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 025	PM10	24-hour	1	HROFDY	397,928.462	4,883,965.873	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 026	PM10	24-hour	1	HROFDY	397,918.463	4,883,966.027	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 027	PM10	24-hour	1	HROFDY	397,908.464	4,883,966.180	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 028	PM10	24-hour	1	HROFDY	397,898.465	4,883,966.334	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 029	PM10	24-hour	1	HROFDY	397,888.467	4,883,966.488	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 030	PM10	24-hour	1	HROFDY	397,878.468	4,883,966.642	301.81	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 031	PM10	24-hour	1	HROFDY	397,868.487	4,883,966.380	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECRD 032	PM10	24-hour	1	HROFDY	397,858.539	4,883,965.360	301.78	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 033	PM10	24-hour	1	HROFDY	397,848.591	4,883,964.339	301.75	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 034	PM10	24-hour	1	HROFDY	397,839.235	4,883,961.062	301.71	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 035	PM10	24-hour	1	HROFDY	397,830.336	4,883,956.707	301.69	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 036	PM10	24-hour	1	HROFDY	397,823.828	4,883,949.114	301.68	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 037	PM10	24-hour	1	HROFDY	397,817.320	4,883,941.522	301.69	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 038	PM10	24-hour	1	HROFDY	397,814.835	4,883,932.340	301.71	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 039	PM10	24-hour	1	HROFDY	397,814.399	4,883,922.350	301.75	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 040	PM10	24-hour	1	HROFDY	397,813.964	4,883,912.359	301.79	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 041	PM10	24-hour	1	HROFDY	397,813.528	4,883,902.369	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 042	PM10	24-hour	1	HROFDY	397,813.092	4,883,892.378	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD	PM10	24-hour	1	HROFDY	397,812.656	4,883,882.388	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along	running 16 hours / 7

	043														Grain Delivery haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 044	PM10	24-hour	1	HROFDY	397,812.220	4,883,872.397	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 045	PM10	24-hour	1	HROFDY	397,811.784	4,883,862.407	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 046	PM10	24-hour	1	HROFDY	397,811.349	4,883,852.416	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 047	PM10	24-hour	1	HROFDY	397,810.913	4,883,842.426	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 048	PM10	24-hour	1	HROFDY	397,810.477	4,883,832.435	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 049	PM10	24-hour	1	HROFDY	397,810.041	4,883,822.445	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 050	PM10	24-hour	1	HROFDY	397,809.605	4,883,812.454	301.8	8.87E-02	1.12E-02	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									4.44E+00	**5.59E-01**						
FUGI3	DDGSRD 001	PM10	24-hour	1	HROFDY	398,025.500	4,883,809.884	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 002	PM10	24-hour	1	HROFDY	398,025.759	4,883,819.881	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 003	PM10	24-hour	1	HROFDY	398,026.018	4,883,829.878	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 004	PM10	24-hour	1	HROFDY	398,026.277	4,883,839.874	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSRD 005	PM10	24-hour	1	HROFDY	398,026.536	4,883,849.871	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 006	PM10	24-hour	1	HROFDY	398,026.795	4,883,859.868	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 007	PM10	24-hour	1	HROFDY	398,027.054	4,883,869.864	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 008	PM10	24-hour	1	HROFDY	398,027.313	4,883,879.861	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 009	PM10	24-hour	1	HROFDY	398,027.572	4,883,889.858	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 010	PM10	24-hour	1	HROFDY	398,027.831	4,883,899.854	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 011	PM10	24-hour	1	HROFDY	398,028.090	4,883,909.851	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 012	PM10	24-hour	1	HROFDY	398,028.349	4,883,919.848	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 013	PM10	24-hour	1	HROFDY	398,028.608	4,883,929.844	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 014	PM10	24-hour	1	HROFDY	398,027.095	4,883,939.416	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 015	PM10	24-hour	1	HROFDY	398,022.332	4,883,948.209	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD	PM10	24-hour	1	HROFDY	398,015.598	4,883,955.189	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along	running 16 hours / 7

	016														DDGS Loadout haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 017	PM10	24-hour	1	HROFDY	398,007.233	4,883,960.669	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 018	PM10	24-hour	1	HROFDY	397,998.454	4,883,964.796	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 019	PM10	24-hour	1	HROFDY	397,988.455	4,883,964.950	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 020	PM10	24-hour	1	HROFDY	397,978.456	4,883,965.104	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 021	PM10	24-hour	1	HROFDY	397,968.457	4,883,965.257	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 022	PM10	24-hour	1	HROFDY	397,958.458	4,883,965.411	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 023	PM10	24-hour	1	HROFDY	397,948.460	4,883,965.565	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 024	PM10	24-hour	1	HROFDY	397,938.461	4,883,965.719	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 025	PM10	24-hour	1	HROFDY	397,928.462	4,883,965.873	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 026	PM10	24-hour	1	HROFDY	397,918.463	4,883,966.027	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 027	PM10	24-hour	1	HROFDY	397,908.464	4,883,966.180	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSRD 028	PM10	24-hour	1	HROFDY	397,898.465	4,883,966.334	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 029	PM10	24-hour	1	HROFDY	397,888.467	4,883,966.488	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 030	PM10	24-hour	1	HROFDY	397,878.468	4,883,966.642	301.81	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 031	PM10	24-hour	1	HROFDY	397,868.487	4,883,966.380	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 032	PM10	24-hour	1	HROFDY	397,858.539	4,883,965.360	301.78	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD033	PM10	24-hour	1	HROFDY	397,848.591	4,883,964.339	301.75	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD034	PM10	24-hour	1	HROFDY	397,839.235	4,883,961.062	301.71	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD035	PM10	24-hour	1	HROFDY	397,830.336	4,883,956.707	301.69	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD036	PM10	24-hour	1	HROFDY	397,823.828	4,883,949.114	301.68	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD037	PM10	24-hour	1	HROFDY	397,817.320	4,883,941.522	301.69	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD038	PM10	24-hour	1	HROFDY	397,814.835	4,883,932.340	301.71	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD039	PM10	24-hour	1	HROFDY	397,814.399	4,883,922.350	301.75	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSRD040	PM10	24-hour	1	HROFDY	397,813.964	4,883,912.359	301.79	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD041	PM10	24-hour	1	HROFDY	397,813.528	4,883,902.369	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD042	PM10	24-hour	1	HROFDY	397,813.092	4,883,892.378	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD043	PM10	24-hour	1	HROFDY	397,812.656	4,883,882.388	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD044	PM10	24-hour	1	HROFDY	397,812.220	4,883,872.397	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD045	PM10	24-hour	1	HROFDY	397,811.784	4,883,862.407	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD046	PM10	24-hour	1	HROFDY	397,811.349	4,883,852.416	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD047	PM10	24-hour	1	HROFDY	397,810.913	4,883,842.426	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD048	PM10	24-hour	1	HROFDY	397,810.477	4,883,832.435	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD049	PM10	24-hour	1	HROFDY	397,810.041	4,883,822.445	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD050	PM10	24-hour	1	HROFDY	397,809.605	4,883,812.454	301.8	1.44E-02	1.82E-03	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									7.21E-01	**9.08E-02**						

FUGI3	COILRD001	PM10	24-hour	1	NA	398,023.506	4,883,800.983	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD002	PM10	24-hour	1	NA	398,025.500	4,883,809.884	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD003	PM10	24-hour	1	NA	398,025.759	4,883,819.881	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD004	PM10	24-hour	1	NA	398,026.018	4,883,829.878	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD005	PM10	24-hour	1	NA	398,026.277	4,883,839.874	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD006	PM10	24-hour	1	NA	398,026.536	4,883,849.871	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD007	PM10	24-hour	1	NA	398,026.795	4,883,859.868	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD008	PM10	24-hour	1	NA	398,027.054	4,883,869.864	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD009	PM10	24-hour	1	NA	398,027.313	4,883,879.861	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD010	PM10	24-hour	1	NA	398,027.572	4,883,889.858	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD011	PM10	24-hour	1	NA	398,027.831	4,883,899.854	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD012	PM10	24-hour	1	NA	398,028.090	4,883,909.851	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD013	PM10	24-hour	1	NA	398,028.349	4,883,919.848	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD014	PM10	24-hour	1	NA	398,028.608	4,883,929.844	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD015	PM10	24-hour	1	NA	398,027.095	4,883,939.416	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD016	PM10	24-hour	1	NA	398,022.332	4,883,948.209	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD017	PM10	24-hour	1	NA	398,015.598	4,883,955.189	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD018	PM10	24-hour	1	NA	398,007.233	4,883,960.669	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	

FUGI3	COILRD019	PM10	24-hour	1	NA	397,998.454	4,883,964.796	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD020	PM10	24-hour	1	NA	397,988.455	4,883,964.950	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD021	PM10	24-hour	1	NA	397,976.457	4,883,959.646	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD022	PM10	24-hour	1	NA	397,969.224	4,883,952.741	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD023	PM10	24-hour	1	NA	397,966.977	4,883,943.587	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD024	PM10	24-hour	1	NA	397,966.589	4,883,933.595	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD025	PM10	24-hour	1	NA	397,966.201	4,883,923.602	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD026	PM10	24-hour	1	NA	397,965.813	4,883,913.610	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD027	PM10	24-hour	1	NA	397,965.425	4,883,903.617	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD028	PM10	24-hour	1	NA	397,965.037	4,883,893.625	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD029	PM10	24-hour	1	NA	397,964.649	4,883,883.632	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD030	PM10	24-hour	1	NA	397,964.261	4,883,873.640	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD031	PM10	24-hour	1	NA	397,963.873	4,883,863.647	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD032	PM10	24-hour	1	NA	397,963.485	4,883,853.655	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD033	PM10	24-hour	1	NA	397,963.096	4,883,843.662	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD034	PM10	24-hour	1	NA	397,962.708	4,883,833.670	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD035	PM10	24-hour	1	NA	397,962.320	4,883,823.677	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD036	PM10	24-hour	1	NA	397,962.544	4,883,813.886	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	

FUGI3	COILRD037	PM10	24-hour	1	NA	397,968.790	4,883,806.077	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD038	PM10	24-hour	1	NA	397,975.037	4,883,798.269	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD039	PM10	24-hour	1	NA	397,984.930	4,883,797.590	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD040	PM10	24-hour	1	NA	397,994.918	4,883,797.099	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD041	PM10	24-hour	1	NA	398,004.906	4,883,796.608	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD042	PM10	24-hour	1	NA	398,014.893	4,883,796.117	301.8	4.70E-03	5.92E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
									1.97E-01	**2.49E-02**						
FUGI3	ETOHRD001	PM10	24-hour	1	NA	398,023.506	4,883,800.983	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD002	PM10	24-hour	1	NA	398,025.500	4,883,809.884	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD003	PM10	24-hour	1	NA	398,025.759	4,883,819.881	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD004	PM10	24-hour	1	NA	398,026.018	4,883,829.878	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD005	PM10	24-hour	1	NA	398,026.277	4,883,839.874	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD006	PM10	24-hour	1	NA	398,026.536	4,883,849.871	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD007	PM10	24-hour	1	NA	398,026.795	4,883,859.868	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD008	PM10	24-hour	1	NA	398,027.054	4,883,869.864	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD009	PM10	24-hour	1	NA	398,027.313	4,883,879.861	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD010	PM10	24-hour	1	NA	398,027.572	4,883,889.858	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD011	PM10	24-hour	1	NA	398,027.831	4,883,899.854	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD012	PM10	24-hour	1	NA	398,028.090	4,883,909.851	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD013	PM10	24-hour	1	NA	398,028.349	4,883,919.848	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD014	PM10	24-hour	1	NA	398,028.608	4,883,929.844	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD015	PM10	24-hour	1	NA	398,027.095	4,883,939.416	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD016	PM10	24-hour	1	NA	398,022.332	4,883,948.209	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD017	PM10	24-hour	1	NA	398,015.598	4,883,955.189	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD018	PM10	24-hour	1	NA	398,007.233	4,883,960.669	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD019	PM10	24-hour	1	NA	397,998.454	4,883,964.796	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD020	PM10	24-hour	1	NA	397,988.455	4,883,964.950	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD021	PM10	24-hour	1	NA	397,978.456	4,883,965.104	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD022	PM10	24-hour	1	NA	397,968.457	4,883,965.257	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD023	PM10	24-hour	1	NA	397,958.458	4,883,965.411	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD024	PM10	24-hour	1	NA	397,948.460	4,883,965.565	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD025	PM10	24-hour	1	NA	397,938.461	4,883,965.719	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD026	PM10	24-hour	1	NA	397,928.462	4,883,965.873	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD027	PM10	24-hour	1	NA	397,918.463	4,883,966.027	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD028	PM10	24-hour	1	NA	397,908.464	4,883,966.180	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD029	PM10	24-hour	1	NA	397,898.465	4,883,966.334	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD030	PM10	24-hour	1	NA	397,888.467	4,883,966.488	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD031	PM10	24-hour	1	NA	397,878.468	4,883,966.642	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD032	PM10	24-hour	1	NA	397,868.487	4,883,966.380	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD033	PM10	24-hour	1	NA	397,858.539	4,883,965.360	301.78	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD034	PM10	24-hour	1	NA	397,848.591	4,883,964.339	301.75	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD035	PM10	24-hour	1	NA	397,839.235	4,883,961.062	301.71	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD036	PM10	24-hour	1	NA	397,830.336	4,883,956.707	301.69	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD037	PM10	24-hour	1	NA	397,823.828	4,883,949.114	301.68	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD038	PM10	24-hour	1	NA	397,817.320	4,883,941.522	301.69	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD039	PM10	24-hour	1	NA	397,814.835	4,883,932.340	301.71	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD040	PM10	24-hour	1	NA	397,808.745	4,883,927.099	301.75	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD041	PM10	24-hour	1	NA	397,805.660	4,883,917.590	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD042	PM10	24-hour	1	NA	397,803.370	4,883,907.856	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD043	PM10	24-hour	1	NA	397,801.079	4,883,898.122	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD044	PM10	24-hour	1	NA	397,800.572	4,883,888.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along	

															Ethanol Loadout route	
FUGI3	ETOHRD045	PM10	24-hour	1	NA	397,800.572	4,883,878.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD046	PM10	24-hour	1	NA	397,800.572	4,883,868.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD047	PM10	24-hour	1	NA	397,800.572	4,883,858.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD048	PM10	24-hour	1	NA	397,800.572	4,883,848.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD049	PM10	24-hour	1	NA	397,800.572	4,883,838.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD050	PM10	24-hour	1	NA	397,800.572	4,883,828.181	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD051	PM10	24-hour	1	NA	397,801.524	4,883,818.469	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD052	PM10	24-hour	1	NA	397,807.071	4,883,810.149	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD053	PM10	24-hour	1	NA	397,815.264	4,883,804.951	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD054	PM10	24-hour	1	NA	397,824.638	4,883,801.984	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD055	PM10	24-hour	1	NA	397,834.636	4,883,801.799	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD056	PM10	24-hour	1	NA	397,844.634	4,883,801.614	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD057	PM10	24-hour	1	NA	397,854.633	4,883,801.429	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD058	PM10	24-hour	1	NA	397,864.631	4,883,801.243	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD059	PM10	24-hour	1	NA	397,874.629	4,883,801.058	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD060	PM10	24-hour	1	NA	397,884.628	4,883,800.873	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD061	PM10	24-hour	1	NA	397,894.626	4,883,800.688	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD062	PM10	24-hour	1	NA	397,904.624	4,883,800.503	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD063	PM10	24-hour	1	NA	397,914.622	4,883,800.318	301.81	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD064	PM10	24-hour	1	NA	397,924.621	4,883,800.133	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD065	PM10	24-hour	1	NA	397,934.619	4,883,799.947	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD066	PM10	24-hour	1	NA	397,944.617	4,883,799.762	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD067	PM10	24-hour	1	NA	397,954.616	4,883,799.577	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD068	PM10	24-hour	1	NA	397,964.614	4,883,799.392	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD069	PM10	24-hour	1	NA	397,975.037	4,883,798.269	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD070	PM10	24-hour	1	NA	397,984.930	4,883,797.590	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD071	PM10	24-hour	1	NA	397,994.918	4,883,797.099	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD072	PM10	24-hour	1	NA	398,004.906	4,883,796.608	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD073	PM10	24-hour	1	NA	398,014.893	4,883,796.117	301.8	1.12E-02	1.41E-03	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
									8.19E-01	**1.03E-01**						
FUGI3	GRECPV001	PM10	24-hour	1	HROFDY	398,412.344	4,883,870.168	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV002	PM10	24-hour	1	HROFDY	398,402.344	4,883,870.168	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV003	PM10	24-hour	1	HROFDY	398,392.344	4,883,870.168	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV004	PM10	24-hour	1	HROFDY	398,382.410	4,883,869.309	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV005	PM10	24-hour	1	HROFDY	398,372.528	4,883,867.775	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV006	PM10	24-hour	1	HROFDY	398,362.647	4,883,866.242	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV007	PM10	24-hour	1	HROFDY	398,352.765	4,883,864.709	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV008	PM10	24-hour	1	HROFDY	398,343.031	4,883,862.471	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV009	PM10	24-hour	1	HROFDY	398,333.368	4,883,859.898	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV010	PM10	24-hour	1	HROFDY	398,323.704	4,883,857.326	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV011	PM10	24-hour	1	HROFDY	398,314.041	4,883,854.753	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV012	PM10	24-hour	1	HROFDY	398,304.378	4,883,852.181	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV013	PM10	24-hour	1	HROFDY	398,294.714	4,883,849.608	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV014	PM10	24-hour	1	HROFDY	398,285.051	4,883,847.036	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV015	PM10	24-hour	1	HROFDY	398,275.387	4,883,844.463	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV016	PM10	24-hour	1	HROFDY	398,265.724	4,883,841.891	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV017	PM10	24-hour	1	HROFDY	398,256.060	4,883,839.318	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV018	PM10	24-hour	1	HROFDY	398,246.397	4,883,836.746	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV019	PM10	24-hour	1	HROFDY	398,236.733	4,883,834.173	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV020	PM10	24-hour	1	HROFDY	398,227.070	4,883,831.601	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV021	PM10	24-hour	1	HROFDY	398,217.407	4,883,829.028	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV022	PM10	24-hour	1	HROFDY	398,207.743	4,883,826.455	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECPV023	PM10	24-hour	1	HROFDY	398,198.080	4,883,823.883	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV024	PM10	24-hour	1	HROFDY	398,188.416	4,883,821.310	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV025	PM10	24-hour	1	HROFDY	398,178.753	4,883,818.738	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV026	PM10	24-hour	1	HROFDY	398,169.089	4,883,816.165	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV027	PM10	24-hour	1	HROFDY	398,159.426	4,883,813.593	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV028	PM10	24-hour	1	HROFDY	398,149.674	4,883,811.401	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV029	PM10	24-hour	1	HROFDY	398,139.868	4,883,809.440	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV030	PM10	24-hour	1	HROFDY	398,130.062	4,883,807.478	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV031	PM10	24-hour	1	HROFDY	398,120.256	4,883,805.517	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV032	PM10	24-hour	1	HROFDY	398,110.451	4,883,803.556	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV033	PM10	24-hour	1	HROFDY	398,100.645	4,883,801.595	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV034	PM10	24-hour	1	HROFDY	398,090.839	4,883,799.634	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															Grain Delivery route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV035	PM10	24-hour	1	HROFDY	398,080.928	4,883,798.731	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV036	PM10	24-hour	1	HROFDY	398,070.928	4,883,798.731	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV037	PM10	24-hour	1	HROFDY	398,060.928	4,883,798.731	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV038	PM10	24-hour	1	HROFDY	398,050.928	4,883,798.731	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV039	PM10	24-hour	1	HROFDY	398,040.928	4,883,798.731	301.8	2.30E-02	2.89E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV040	PM10	24-hour	1	HROFDY	398,032.482	4,883,803.392	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV041	PM10	24-hour	1	HROFDY	398,029.437	4,883,797.408	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV042	PM10	24-hour	1	HROFDY	397,809.169	4,883,802.464	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV043	PM10	24-hour	1	HROFDY	397,808.734	4,883,792.473	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV044	PM10	24-hour	1	HROFDY	397,808.298	4,883,782.483	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV045	PM10	24-hour	1	HROFDY	397,807.862	4,883,772.492	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV046	PM10	24-hour	1	HROFDY	397,807.426	4,883,762.502	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV047	PM10	24-hour	1	HROFDY	397,806.990	4,883,752.511	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV048	PM10	24-hour	1	HROFDY	397,806.555	4,883,742.521	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV049	PM10	24-hour	1	HROFDY	397,809.988	4,883,733.188	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV050	PM10	24-hour	1	HROFDY	397,813.702	4,883,723.904	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV051	PM10	24-hour	1	HROFDY	397,820.089	4,883,717.833	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV052	PM10	24-hour	1	HROFDY	397,829.895	4,883,715.872	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV053	PM10	24-hour	1	HROFDY	397,839.634	4,883,715.823	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV054	PM10	24-hour	1	HROFDY	397,849.278	4,883,718.467	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV055	PM10	24-hour	1	HROFDY	397,897.499	4,883,731.686	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV056	PM10	24-hour	1	HROFDY	397,907.143	4,883,734.329	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV057	PM10	24-hour	1	HROFDY	397,916.787	4,883,736.973	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	GRECPV058	PM10	24-hour	1	HROFDY	397,926.431	4,883,739.617	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV059	PM10	24-hour	1	HROFDY	397,936.076	4,883,742.261	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV060	PM10	24-hour	1	HROFDY	397,945.720	4,883,744.904	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV061	PM10	24-hour	1	HROFDY	397,955.364	4,883,747.548	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV062	PM10	24-hour	1	HROFDY	397,965.008	4,883,750.192	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV063	PM10	24-hour	1	HROFDY	397,974.652	4,883,752.836	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV064	PM10	24-hour	1	HROFDY	397,984.297	4,883,755.480	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV065	PM10	24-hour	1	HROFDY	397,993.941	4,883,758.123	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV066	PM10	24-hour	1	HROFDY	398,003.585	4,883,760.767	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV067	PM10	24-hour	1	HROFDY	398,011.275	4,883,766.557	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV068	PM10	24-hour	1	HROFDY	398,017.918	4,883,774.031	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV069	PM10	24-hour	1	HROFDY	398,022.981	4,883,782.162	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															Grain Delivery route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV070	PM10	24-hour	1	HROFDY	398,023.586	4,883,792.144	301.8	1.15E-02	1.45E-03	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									1.25E+00	**1.58E-01**						
FUGI3	DDGSPV001	PM10	24-hour	1	HROFDY	398,412.344	4,883,870.168	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV002	PM10	24-hour	1	HROFDY	398,402.344	4,883,870.168	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV003	PM10	24-hour	1	HROFDY	398,392.344	4,883,870.168	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV004	PM10	24-hour	1	HROFDY	398,382.410	4,883,869.309	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV005	PM10	24-hour	1	HROFDY	398,372.528	4,883,867.775	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV006	PM10	24-hour	1	HROFDY	398,362.647	4,883,866.242	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV007	PM10	24-hour	1	HROFDY	398,352.765	4,883,864.709	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV008	PM10	24-hour	1	HROFDY	398,343.031	4,883,862.471	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV009	PM10	24-hour	1	HROFDY	398,333.368	4,883,859.898	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV010	PM10	24-hour	1	HROFDY	398,323.704	4,883,857.326	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSPV011	PM10	24-hour	1	HROFDY	398,314.041	4,883,854.753	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV012	PM10	24-hour	1	HROFDY	398,304.378	4,883,852.181	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV013	PM10	24-hour	1	HROFDY	398,294.714	4,883,849.608	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV014	PM10	24-hour	1	HROFDY	398,285.051	4,883,847.036	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV015	PM10	24-hour	1	HROFDY	398,275.387	4,883,844.463	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV016	PM10	24-hour	1	HROFDY	398,265.724	4,883,841.891	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV017	PM10	24-hour	1	HROFDY	398,256.060	4,883,839.318	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV018	PM10	24-hour	1	HROFDY	398,246.397	4,883,836.746	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV019	PM10	24-hour	1	HROFDY	398,236.733	4,883,834.173	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV020	PM10	24-hour	1	HROFDY	398,227.070	4,883,831.601	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV021	PM10	24-hour	1	HROFDY	398,217.407	4,883,829.028	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV022	PM10	24-hour	1	HROFDY	398,207.743	4,883,826.455	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															DDGS Loading route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV023	PM10	24-hour	1	HROFDY	398,198.080	4,883,823.883	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV024	PM10	24-hour	1	HROFDY	398,188.416	4,883,821.310	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV025	PM10	24-hour	1	HROFDY	398,178.753	4,883,818.738	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV026	PM10	24-hour	1	HROFDY	398,169.089	4,883,816.165	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV027	PM10	24-hour	1	HROFDY	398,159.426	4,883,813.593	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV028	PM10	24-hour	1	HROFDY	398,149.674	4,883,811.401	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV029	PM10	24-hour	1	HROFDY	398,139.868	4,883,809.440	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV030	PM10	24-hour	1	HROFDY	398,130.062	4,883,807.478	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV031	PM10	24-hour	1	HROFDY	398,120.256	4,883,805.517	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV032	PM10	24-hour	1	HROFDY	398,110.451	4,883,803.556	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV033	PM10	24-hour	1	HROFDY	398,100.645	4,883,801.595	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV034	PM10	24-hour	1	HROFDY	398,090.839	4,883,799.634	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV035	PM10	24-hour	1	HROFDY	398,080.928	4,883,798.731	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV036	PM10	24-hour	1	HROFDY	398,070.928	4,883,798.731	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV037	PM10	24-hour	1	HROFDY	398,060.928	4,883,798.731	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV038	PM10	24-hour	1	HROFDY	398,050.928	4,883,798.731	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV039	PM10	24-hour	1	HROFDY	398,040.928	4,883,798.731	301.8	3.73E-03	4.70E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV040	PM10	24-hour	1	HROFDY	398,032.482	4,883,803.392	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV041	PM10	24-hour	1	HROFDY	398,029.437	4,883,797.408	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV042	PM10	24-hour	1	HROFDY	397,809.169	4,883,802.464	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV043	PM10	24-hour	1	HROFDY	397,808.734	4,883,792.473	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV044	PM10	24-hour	1	HROFDY	397,808.298	4,883,782.483	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV045	PM10	24-hour	1	HROFDY	397,807.862	4,883,772.492	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSPV046	PM10	24-hour	1	HROFDY	397,807.426	4,883,762.502	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV047	PM10	24-hour	1	HROFDY	397,806.990	4,883,752.511	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV048	PM10	24-hour	1	HROFDY	397,806.555	4,883,742.521	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV049	PM10	24-hour	1	HROFDY	397,809.988	4,883,733.188	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV050	PM10	24-hour	1	HROFDY	397,813.702	4,883,723.904	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV051	PM10	24-hour	1	HROFDY	397,820.089	4,883,717.833	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV052	PM10	24-hour	1	HROFDY	397,829.895	4,883,715.872	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV053	PM10	24-hour	1	HROFDY	397,839.634	4,883,715.823	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV054	PM10	24-hour	1	HROFDY	397,849.278	4,883,718.467	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV055	PM10	24-hour	1	HROFDY	397,897.499	4,883,731.686	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV056	PM10	24-hour	1	HROFDY	397,907.143	4,883,734.329	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV057	PM10	24-hour	1	HROFDY	397,916.787	4,883,736.973	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															DDGS Loading route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV058	PM10	24-hour	1	HROFDY	397,926.431	4,883,739.617	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV059	PM10	24-hour	1	HROFDY	397,936.076	4,883,742.261	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV060	PM10	24-hour	1	HROFDY	397,945.720	4,883,744.904	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV061	PM10	24-hour	1	HROFDY	397,955.364	4,883,747.548	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV062	PM10	24-hour	1	HROFDY	397,965.008	4,883,750.192	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV063	PM10	24-hour	1	HROFDY	397,974.652	4,883,752.836	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV064	PM10	24-hour	1	HROFDY	397,984.297	4,883,755.480	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV065	PM10	24-hour	1	HROFDY	397,993.941	4,883,758.123	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV066	PM10	24-hour	1	HROFDY	398,003.585	4,883,760.767	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV067	PM10	24-hour	1	HROFDY	398,011.275	4,883,766.557	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV068	PM10	24-hour	1	HROFDY	398,017.918	4,883,774.031	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV069	PM10	24-hour	1	HROFDY	398,022.981	4,883,782.162	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV070	PM10	24-hour	1	HROFDY	398,023.586	4,883,792.144	301.8	1.87E-03	2.35E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									2.03E-01	**2.56E-02**						
FUGI3	COILPV001	PM10	24-hour	1	NA	398,412.344	4,883,870.168	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV002	PM10	24-hour	1	NA	398,402.344	4,883,870.168	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV003	PM10	24-hour	1	NA	398,392.344	4,883,870.168	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV004	PM10	24-hour	1	NA	398,382.410	4,883,869.309	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV005	PM10	24-hour	1	NA	398,372.528	4,883,867.775	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV006	PM10	24-hour	1	NA	398,362.647	4,883,866.242	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV007	PM10	24-hour	1	NA	398,352.765	4,883,864.709	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV008	PM10	24-hour	1	NA	398,343.031	4,883,862.471	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV009	PM10	24-hour	1	NA	398,333.368	4,883,859.898	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV010	PM10	24-hour	1	NA	398,323.704	4,883,857.326	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV011	PM10	24-hour	1	NA	398,314.041	4,883,854.753	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV012	PM10	24-hour	1	NA	398,304.378	4,883,852.181	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV013	PM10	24-hour	1	NA	398,294.714	4,883,849.608	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV014	PM10	24-hour	1	NA	398,285.051	4,883,847.036	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV015	PM10	24-hour	1	NA	398,275.387	4,883,844.463	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV016	PM10	24-hour	1	NA	398,265.724	4,883,841.891	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	

FUGI3	COILPV017	PM10	24-hour	1	NA	398,256.060	4,883,839.318	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV018	PM10	24-hour	1	NA	398,246.397	4,883,836.746	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV019	PM10	24-hour	1	NA	398,236.733	4,883,834.173	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV020	PM10	24-hour	1	NA	398,227.070	4,883,831.601	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV021	PM10	24-hour	1	NA	398,217.407	4,883,829.028	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV022	PM10	24-hour	1	NA	398,207.743	4,883,826.455	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV023	PM10	24-hour	1	NA	398,198.080	4,883,823.883	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV024	PM10	24-hour	1	NA	398,188.416	4,883,821.310	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV025	PM10	24-hour	1	NA	398,178.753	4,883,818.738	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV026	PM10	24-hour	1	NA	398,169.089	4,883,816.165	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV027	PM10	24-hour	1	NA	398,159.426	4,883,813.593	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV028	PM10	24-hour	1	NA	398,149.674	4,883,811.401	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV029	PM10	24-hour	1	NA	398,139.868	4,883,809.440	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV030	PM10	24-hour	1	NA	398,130.062	4,883,807.478	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV031	PM10	24-hour	1	NA	398,120.256	4,883,805.517	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV032	PM10	24-hour	1	NA	398,110.451	4,883,803.556	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV033	PM10	24-hour	1	NA	398,100.645	4,883,801.595	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV034	PM10	24-hour	1	NA	398,090.839	4,883,799.634	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV035	PM10	24-hour	1	NA	398,080.928	4,883,798.731	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV036	PM10	24-hour	1	NA	398,070.928	4,883,798.731	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	

FUGI3	COILPV037	PM10	24-hour	1	NA	398,060.928	4,883,798.731	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV038	PM10	24-hour	1	NA	398,050.928	4,883,798.731	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV039	PM10	24-hour	1	NA	398,040.928	4,883,798.731	301.8	7.49E-04	9.44E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV040	PM10	24-hour	1	NA	398,032.482	4,883,803.392	301.8	3.75E-04	4.72E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV041	PM10	24-hour	1	NA	398,029.437	4,883,797.408	301.8	3.75E-04	4.72E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
									3.00E-02	**3.78E-03**						
FUGI3	ETOHPV001	PM10	24-hour	1	NA	398,412.344	4,883,870.168	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV002	PM10	24-hour	1	NA	398,402.344	4,883,870.168	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV003	PM10	24-hour	1	NA	398,392.344	4,883,870.168	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV004	PM10	24-hour	1	NA	398,382.410	4,883,869.309	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV005	PM10	24-hour	1	NA	398,372.528	4,883,867.775	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV006	PM10	24-hour	1	NA	398,362.647	4,883,866.242	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV007	PM10	24-hour	1	NA	398,352.765	4,883,864.709	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV008	PM10	24-hour	1	NA	398,343.031	4,883,862.471	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV009	PM10	24-hour	1	NA	398,333.368	4,883,859.898	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV010	PM10	24-hour	1	NA	398,323.704	4,883,857.326	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV011	PM10	24-hour	1	NA	398,314.041	4,883,854.753	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV012	PM10	24-hour	1	NA	398,304.378	4,883,852.181	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV013	PM10	24-hour	1	NA	398,294.714	4,883,849.608	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV014	PM10	24-hour	1	NA	398,285.051	4,883,847.036	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV015	PM10	24-hour	1	NA	398,275.387	4,883,844.463	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV016	PM10	24-hour	1	NA	398,265.724	4,883,841.891	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV017	PM10	24-hour	1	NA	398,256.060	4,883,839.318	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV018	PM10	24-hour	1	NA	398,246.397	4,883,836.746	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV019	PM10	24-hour	1	NA	398,236.733	4,883,834.173	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV020	PM10	24-hour	1	NA	398,227.070	4,883,831.601	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along	

															Ethanol Loadout route	
FUGI3	ETOHPV021	PM10	24-hour	1	NA	398,217.407	4,883,829.028	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV022	PM10	24-hour	1	NA	398,207.743	4,883,826.455	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV023	PM10	24-hour	1	NA	398,198.080	4,883,823.883	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV024	PM10	24-hour	1	NA	398,188.416	4,883,821.310	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV025	PM10	24-hour	1	NA	398,178.753	4,883,818.738	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV026	PM10	24-hour	1	NA	398,169.089	4,883,816.165	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV027	PM10	24-hour	1	NA	398,159.426	4,883,813.593	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV028	PM10	24-hour	1	NA	398,149.674	4,883,811.401	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV029	PM10	24-hour	1	NA	398,139.868	4,883,809.440	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV030	PM10	24-hour	1	NA	398,130.062	4,883,807.478	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV031	PM10	24-hour	1	NA	398,120.256	4,883,805.517	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV032	PM10	24-hour	1	NA	398,110.451	4,883,803.556	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV033	PM10	24-hour	1	NA	398,100.645	4,883,801.595	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV034	PM10	24-hour	1	NA	398,090.839	4,883,799.634	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV035	PM10	24-hour	1	NA	398,080.928	4,883,798.731	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV036	PM10	24-hour	1	NA	398,070.928	4,883,798.731	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV037	PM10	24-hour	1	NA	398,060.928	4,883,798.731	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV038	PM10	24-hour	1	NA	398,050.928	4,883,798.731	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV039	PM10	24-hour	1	NA	398,040.928	4,883,798.731	301.8	2.88E-03	3.63E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV040	PM10	24-hour	1	NA	398,032.482	4,883,803.392	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV041	PM10	24-hour	1	NA	398,029.437	4,883,797.408	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
									1.15E-01	**1.45E-02**						
EQUI80 & EQUI99	GRREC1	PM2.5	24-hour	1	HROFDY	397,889.095	4,883,734.130	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC2	PM2.5	24-hour	1	HROFDY	397,890.533	4,883,729.337	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

EQUI80 & EQUI99	GRREC3	PM2.5	24-hour	1	HROFDY	397,891.836	4,883,724.777	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC4	PM2.5	24-hour	1	HROFDY	397,893.139	4,883,719.752	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC5	PM2.5	24-hour	1	HROFDY	397,859.255	4,883,726.417	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC6	PM2.5	24-hour	1	HROFDY	397,860.693	4,883,721.625	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC7	PM2.5	24-hour	1	HROFDY	397,861.996	4,883,717.065	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC8	PM2.5	24-hour	1	HROFDY	397,863.299	4,883,712.039	301.8	2.71E-02	3.42E-03	2.1336	0.85	6.67	3.6576	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									2.17E-01	**2.73E-02**						
EQUI52	EQUI521	PM2.5	24-hour	1	NA	397,889.095	4,883,734.130	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI522	PM2.5	24-hour	1	NA	397,890.533	4,883,729.337	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI523	PM2.5	24-hour	1	NA	397,891.836	4,883,724.777	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI524	PM2.5	24-hour	1	NA	397,893.139	4,883,719.752	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI525	PM2.5	24-hour	1	NA	397,859.255	4,883,726.417	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI526	PM2.5	24-hour	1	NA	397,860.693	4,883,721.625	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI527	PM2.5	24-hour	1	NA	397,861.996	4,883,717.065	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI528	PM2.5	24-hour	1	NA	397,863.299	4,883,712.039	301.8	3.00E-03	3.78E-04	2.1336	0.85	6.67	3.6576	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
									2.40E-02	**3.02E-03**						

EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD1	PM2.5	24-hour	1	HROFDY	397,889.095	4,883,734.130	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD2	PM2.5	24-hour	1	HROFDY	397,890.533	4,883,729.337	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD3	PM2.5	24-hour	1	HROFDY	397,891.836	4,883,724.777	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD4	PM2.5	24-hour	1	HROFDY	397,893.139	4,883,719.752	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD5	PM2.5	24-hour	1	HROFDY	397,859.255	4,883,726.417	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD6	PM2.5	24-hour	1	HROFDY	397,860.693	4,883,721.625	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD7	PM2.5	24-hour	1	HROFDY	397,861.996	4,883,717.065	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD8	PM2.5	24-hour	1	HROFDY	397,863.299	4,883,712.039	301.8	2.97E-02	3.75E-03	2.1336	0.85	6.67	3.6576	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									2.38E-01	**3.00E-02**						
Insignificant Space Heating	LAKHEAT1	PM2.5	24-hour	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT2	PM2.5	24-hour	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT3	PM2.5	24-hour	1	NA	398,010.683	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT4	PM2.5	24-hour	1	NA	398,010.680	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT5	PM2.5	24-hour	1	NA	398,019.555	4,883,898.514	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT6	PM2.5	24-hour	1	NA	398,130.660	4,883,793.728	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1	Insignificant Activities - Space Heating	
									5.51E-03	**6.95E-04**						
FUGI3	GRECRD001	PM2.5	24-hour	1	HROFDY	398,025.500	4,883,809.884	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of

																operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD002	PM2.5	24-hour	1	HROFDY	398,025.759	4,883,819.881	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD003	PM2.5	24-hour	1	HROFDY	398,026.018	4,883,829.878	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD004	PM2.5	24-hour	1	HROFDY	398,026.277	4,883,839.874	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD005	PM2.5	24-hour	1	HROFDY	398,026.536	4,883,849.871	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD006	PM2.5	24-hour	1	HROFDY	398,026.795	4,883,859.868	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD007	PM2.5	24-hour	1	HROFDY	398,027.054	4,883,869.864	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD008	PM2.5	24-hour	1	HROFDY	398,027.313	4,883,879.861	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD009	PM2.5	24-hour	1	HROFDY	398,027.572	4,883,889.858	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD010	PM2.5	24-hour	1	HROFDY	398,027.831	4,883,899.854	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD011	PM2.5	24-hour	1	HROFDY	398,028.090	4,883,909.851	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD012	PM2.5	24-hour	1	HROFDY	398,028.349	4,883,919.848	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECRD013	PM2.5	24-hour	1	HROFDY	398,028.608	4,883,929.844	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD014	PM2.5	24-hour	1	HROFDY	398,027.095	4,883,939.416	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD015	PM2.5	24-hour	1	HROFDY	398,022.332	4,883,948.209	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD016	PM2.5	24-hour	1	HROFDY	398,015.598	4,883,955.189	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD017	PM2.5	24-hour	1	HROFDY	398,007.233	4,883,960.669	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD018	PM2.5	24-hour	1	HROFDY	397,998.454	4,883,964.796	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD019	PM2.5	24-hour	1	HROFDY	397,988.455	4,883,964.950	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD020	PM2.5	24-hour	1	HROFDY	397,978.456	4,883,965.104	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD021	PM2.5	24-hour	1	HROFDY	397,968.457	4,883,965.257	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD022	PM2.5	24-hour	1	HROFDY	397,958.458	4,883,965.411	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD023	PM2.5	24-hour	1	HROFDY	397,948.460	4,883,965.565	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD024	PM2.5	24-hour	1	HROFDY	397,938.461	4,883,965.719	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECRD025	PM2.5	24-hour	1	HROFDY	397,928.462	4,883,965.873	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD026	PM2.5	24-hour	1	HROFDY	397,918.463	4,883,966.027	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD027	PM2.5	24-hour	1	HROFDY	397,908.464	4,883,966.180	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD028	PM2.5	24-hour	1	HROFDY	397,898.465	4,883,966.334	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD029	PM2.5	24-hour	1	HROFDY	397,888.467	4,883,966.488	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD030	PM2.5	24-hour	1	HROFDY	397,878.468	4,883,966.642	301.81	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD031	PM2.5	24-hour	1	HROFDY	397,868.487	4,883,966.380	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD032	PM2.5	24-hour	1	HROFDY	397,858.539	4,883,965.360	301.78	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 033	PM2.5	24-hour	1	HROFDY	397,848.591	4,883,964.339	301.75	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 034	PM2.5	24-hour	1	HROFDY	397,839.235	4,883,961.062	301.71	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 035	PM2.5	24-hour	1	HROFDY	397,830.336	4,883,956.707	301.69	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD	PM2.5	24-hour	1	HROFDY	397,823.828	4,883,949.114	301.68	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along	running 16 hours / 7

	036														Grain Delivery haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 037	PM2.5	24-hour	1	HROFDY	397,817.320	4,883,941.522	301.69	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 038	PM2.5	24-hour	1	HROFDY	397,814.835	4,883,932.340	301.71	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 039	PM2.5	24-hour	1	HROFDY	397,814.399	4,883,922.350	301.75	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 040	PM2.5	24-hour	1	HROFDY	397,813.964	4,883,912.359	301.79	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 041	PM2.5	24-hour	1	HROFDY	397,813.528	4,883,902.369	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 042	PM2.5	24-hour	1	HROFDY	397,813.092	4,883,892.378	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 043	PM2.5	24-hour	1	HROFDY	397,812.656	4,883,882.388	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 044	PM2.5	24-hour	1	HROFDY	397,812.220	4,883,872.397	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 045	PM2.5	24-hour	1	HROFDY	397,811.784	4,883,862.407	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 046	PM2.5	24-hour	1	HROFDY	397,811.349	4,883,852.416	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 047	PM2.5	24-hour	1	HROFDY	397,810.913	4,883,842.426	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECRD 048	PM2.5	24-hour	1	HROFDY	397,810.477	4,883,832.435	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 049	PM2.5	24-hour	1	HROFDY	397,810.041	4,883,822.445	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 050	PM2.5	24-hour	1	HROFDY	397,809.605	4,883,812.454	301.8	8.87E-03	1.12E-03	2.84988	4.65	2.65	10	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									4.44E-01	**5.59E-02**						
FUGI3	DDGSRD 001	PM2.5	24-hour	1	HROFDY	398,025.500	4,883,809.884	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 002	PM2.5	24-hour	1	HROFDY	398,025.759	4,883,819.881	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 003	PM2.5	24-hour	1	HROFDY	398,026.018	4,883,829.878	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 004	PM2.5	24-hour	1	HROFDY	398,026.277	4,883,839.874	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 005	PM2.5	24-hour	1	HROFDY	398,026.536	4,883,849.871	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 006	PM2.5	24-hour	1	HROFDY	398,026.795	4,883,859.868	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 007	PM2.5	24-hour	1	HROFDY	398,027.054	4,883,869.864	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 008	PM2.5	24-hour	1	HROFDY	398,027.313	4,883,879.861	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 009	PM2.5	24-hour	1	HROFDY	398,027.572	4,883,889.858	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 010	PM2.5	24-hour	1	HROFDY	398,027.831	4,883,899.854	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 011	PM2.5	24-hour	1	HROFDY	398,028.090	4,883,909.851	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 012	PM2.5	24-hour	1	HROFDY	398,028.349	4,883,919.848	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 013	PM2.5	24-hour	1	HROFDY	398,028.608	4,883,929.844	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 014	PM2.5	24-hour	1	HROFDY	398,027.095	4,883,939.416	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 015	PM2.5	24-hour	1	HROFDY	398,022.332	4,883,948.209	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 016	PM2.5	24-hour	1	HROFDY	398,015.598	4,883,955.189	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 017	PM2.5	24-hour	1	HROFDY	398,007.233	4,883,960.669	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 018	PM2.5	24-hour	1	HROFDY	397,998.454	4,883,964.796	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 019	PM2.5	24-hour	1	HROFDY	397,988.455	4,883,964.950	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 020	PM2.5	24-hour	1	HROFDY	397,978.456	4,883,965.104	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSRD021	PM2.5	24-hour	1	HROFDY	397,968.457	4,883,965.257	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD022	PM2.5	24-hour	1	HROFDY	397,958.458	4,883,965.411	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD023	PM2.5	24-hour	1	HROFDY	397,948.460	4,883,965.565	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD024	PM2.5	24-hour	1	HROFDY	397,938.461	4,883,965.719	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD025	PM2.5	24-hour	1	HROFDY	397,928.462	4,883,965.873	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD026	PM2.5	24-hour	1	HROFDY	397,918.463	4,883,966.027	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD027	PM2.5	24-hour	1	HROFDY	397,908.464	4,883,966.180	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD028	PM2.5	24-hour	1	HROFDY	397,898.465	4,883,966.334	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD029	PM2.5	24-hour	1	HROFDY	397,888.467	4,883,966.488	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD030	PM2.5	24-hour	1	HROFDY	397,878.468	4,883,966.642	301.81	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD031	PM2.5	24-hour	1	HROFDY	397,868.487	4,883,966.380	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD032	PM2.5	24-hour	1	HROFDY	397,858.539	4,883,965.360	301.78	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSRD033	PM2.5	24-hour	1	HROFDY	397,848.591	4,883,964.339	301.75	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD034	PM2.5	24-hour	1	HROFDY	397,839.235	4,883,961.062	301.71	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD035	PM2.5	24-hour	1	HROFDY	397,830.336	4,883,956.707	301.69	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD036	PM2.5	24-hour	1	HROFDY	397,823.828	4,883,949.114	301.68	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD037	PM2.5	24-hour	1	HROFDY	397,817.320	4,883,941.522	301.69	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD038	PM2.5	24-hour	1	HROFDY	397,814.835	4,883,932.340	301.71	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD039	PM2.5	24-hour	1	HROFDY	397,814.399	4,883,922.350	301.75	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD040	PM2.5	24-hour	1	HROFDY	397,813.964	4,883,912.359	301.79	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD041	PM2.5	24-hour	1	HROFDY	397,813.528	4,883,902.369	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD042	PM2.5	24-hour	1	HROFDY	397,813.092	4,883,892.378	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD043	PM2.5	24-hour	1	HROFDY	397,812.656	4,883,882.388	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD044	PM2.5	24-hour	1	HROFDY	397,812.220	4,883,872.397	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along	running 16 hours / 7

															DDGS Loadout haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD045	PM2.5	24-hour	1	HROFDY	397,811.784	4,883,862.407	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD046	PM2.5	24-hour	1	HROFDY	397,811.349	4,883,852.416	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD047	PM2.5	24-hour	1	HROFDY	397,810.913	4,883,842.426	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD048	PM2.5	24-hour	1	HROFDY	397,810.477	4,883,832.435	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD049	PM2.5	24-hour	1	HROFDY	397,810.041	4,883,822.445	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD050	PM2.5	24-hour	1	HROFDY	397,809.605	4,883,812.454	301.8	1.44E-03	1.82E-04	2.84988	4.65	2.65	10	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									7.21E-02	**9.08E-03**						
FUGI3	COILRD001	PM2.5	24-hour	1	NA	398,023.506	4,883,800.983	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD002	PM2.5	24-hour	1	NA	398,025.500	4,883,809.884	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD003	PM2.5	24-hour	1	NA	398,025.759	4,883,819.881	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD004	PM2.5	24-hour	1	NA	398,026.018	4,883,829.878	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD005	PM2.5	24-hour	1	NA	398,026.277	4,883,839.874	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD006	PM2.5	24-hour	1	NA	398,026.536	4,883,849.871	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD007	PM2.5	24-hour	1	NA	398,026.795	4,883,859.868	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	

FUGI3	COILRD008	PM2.5	24-hour	1	NA	398,027.054	4,883,869.864	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD009	PM2.5	24-hour	1	NA	398,027.313	4,883,879.861	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD010	PM2.5	24-hour	1	NA	398,027.572	4,883,889.858	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD011	PM2.5	24-hour	1	NA	398,027.831	4,883,899.854	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD012	PM2.5	24-hour	1	NA	398,028.090	4,883,909.851	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD013	PM2.5	24-hour	1	NA	398,028.349	4,883,919.848	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD014	PM2.5	24-hour	1	NA	398,028.608	4,883,929.844	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD015	PM2.5	24-hour	1	NA	398,027.095	4,883,939.416	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD016	PM2.5	24-hour	1	NA	398,022.332	4,883,948.209	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD017	PM2.5	24-hour	1	NA	398,015.598	4,883,955.189	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD018	PM2.5	24-hour	1	NA	398,007.233	4,883,960.669	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD019	PM2.5	24-hour	1	NA	397,998.454	4,883,964.796	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD020	PM2.5	24-hour	1	NA	397,988.455	4,883,964.950	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD021	PM2.5	24-hour	1	NA	397,976.457	4,883,959.646	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD022	PM2.5	24-hour	1	NA	397,969.224	4,883,952.741	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD023	PM2.5	24-hour	1	NA	397,966.977	4,883,943.587	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD024	PM2.5	24-hour	1	NA	397,966.589	4,883,933.595	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD025	PM2.5	24-hour	1	NA	397,966.201	4,883,923.602	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	

FUGI3	COILRD026	PM2.5	24-hour	1	NA	397,965.813	4,883,913.610	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD027	PM2.5	24-hour	1	NA	397,965.425	4,883,903.617	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD028	PM2.5	24-hour	1	NA	397,965.037	4,883,893.625	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD029	PM2.5	24-hour	1	NA	397,964.649	4,883,883.632	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD030	PM2.5	24-hour	1	NA	397,964.261	4,883,873.640	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD031	PM2.5	24-hour	1	NA	397,963.873	4,883,863.647	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD032	PM2.5	24-hour	1	NA	397,963.485	4,883,853.655	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD033	PM2.5	24-hour	1	NA	397,963.096	4,883,843.662	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD034	PM2.5	24-hour	1	NA	397,962.708	4,883,833.670	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD035	PM2.5	24-hour	1	NA	397,962.320	4,883,823.677	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD036	PM2.5	24-hour	1	NA	397,962.544	4,883,813.886	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD037	PM2.5	24-hour	1	NA	397,968.790	4,883,806.077	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD038	PM2.5	24-hour	1	NA	397,975.037	4,883,798.269	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD039	PM2.5	24-hour	1	NA	397,984.930	4,883,797.590	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD040	PM2.5	24-hour	1	NA	397,994.918	4,883,797.099	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD041	PM2.5	24-hour	1	NA	398,004.906	4,883,796.608	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD042	PM2.5	24-hour	1	NA	398,014.893	4,883,796.117	301.8	4.70E-04	5.92E-05	2.84988	4.65	2.65	10	Unpaved sections along Corn Oil and CO2 haul route	
									1.97E-02	**2.49E-03**						
FUGI3	ETOHRD001	PM2.5	24-hour	1	NA	398,023.506	4,883,800.983	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD002	PM2.5	24-hour	1	NA	398,025.500	4,883,809.884	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD003	PM2.5	24-hour	1	NA	398,025.759	4,883,819.881	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD004	PM2.5	24-hour	1	NA	398,026.018	4,883,829.878	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD005	PM2.5	24-hour	1	NA	398,026.277	4,883,839.874	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD006	PM2.5	24-hour	1	NA	398,026.536	4,883,849.871	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD007	PM2.5	24-hour	1	NA	398,026.795	4,883,859.868	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD008	PM2.5	24-hour	1	NA	398,027.054	4,883,869.864	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD009	PM2.5	24-hour	1	NA	398,027.313	4,883,879.861	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD010	PM2.5	24-hour	1	NA	398,027.572	4,883,889.858	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD011	PM2.5	24-hour	1	NA	398,027.831	4,883,899.854	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD012	PM2.5	24-hour	1	NA	398,028.090	4,883,909.851	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD013	PM2.5	24-hour	1	NA	398,028.349	4,883,919.848	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD014	PM2.5	24-hour	1	NA	398,028.608	4,883,929.844	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD015	PM2.5	24-hour	1	NA	398,027.095	4,883,939.416	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD016	PM2.5	24-hour	1	NA	398,022.332	4,883,948.209	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD017	PM2.5	24-hour	1	NA	398,015.598	4,883,955.189	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD018	PM2.5	24-hour	1	NA	398,007.233	4,883,960.669	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD019	PM2.5	24-hour	1	NA	397,998.454	4,883,964.796	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD020	PM2.5	24-hour	1	NA	397,988.455	4,883,964.950	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD021	PM2.5	24-hour	1	NA	397,978.456	4,883,965.104	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD022	PM2.5	24-hour	1	NA	397,968.457	4,883,965.257	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD023	PM2.5	24-hour	1	NA	397,958.458	4,883,965.411	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD024	PM2.5	24-hour	1	NA	397,948.460	4,883,965.565	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD025	PM2.5	24-hour	1	NA	397,938.461	4,883,965.719	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD026	PM2.5	24-hour	1	NA	397,928.462	4,883,965.873	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD027	PM2.5	24-hour	1	NA	397,918.463	4,883,966.027	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD028	PM2.5	24-hour	1	NA	397,908.464	4,883,966.180	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along	

															Ethanol Loadout route	
FUGI3	ETOHRD029	PM2.5	24-hour	1	NA	397,898.465	4,883,966.334	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD030	PM2.5	24-hour	1	NA	397,888.467	4,883,966.488	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD031	PM2.5	24-hour	1	NA	397,878.468	4,883,966.642	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD032	PM2.5	24-hour	1	NA	397,868.487	4,883,966.380	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD033	PM2.5	24-hour	1	NA	397,858.539	4,883,965.360	301.78	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD034	PM2.5	24-hour	1	NA	397,848.591	4,883,964.339	301.75	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD035	PM2.5	24-hour	1	NA	397,839.235	4,883,961.062	301.71	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD036	PM2.5	24-hour	1	NA	397,830.336	4,883,956.707	301.69	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD037	PM2.5	24-hour	1	NA	397,823.828	4,883,949.114	301.68	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD038	PM2.5	24-hour	1	NA	397,817.320	4,883,941.522	301.69	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD039	PM2.5	24-hour	1	NA	397,814.835	4,883,932.340	301.71	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD040	PM2.5	24-hour	1	NA	397,808.745	4,883,927.099	301.75	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD041	PM2.5	24-hour	1	NA	397,805.660	4,883,917.590	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD042	PM2.5	24-hour	1	NA	397,803.370	4,883,907.856	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD043	PM2.5	24-hour	1	NA	397,801.079	4,883,898.122	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD044	PM2.5	24-hour	1	NA	397,800.572	4,883,888.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD045	PM2.5	24-hour	1	NA	397,800.572	4,883,878.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD046	PM2.5	24-hour	1	NA	397,800.572	4,883,868.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD047	PM2.5	24-hour	1	NA	397,800.572	4,883,858.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD048	PM2.5	24-hour	1	NA	397,800.572	4,883,848.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD049	PM2.5	24-hour	1	NA	397,800.572	4,883,838.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD050	PM2.5	24-hour	1	NA	397,800.572	4,883,828.181	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD051	PM2.5	24-hour	1	NA	397,801.524	4,883,818.469	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD052	PM2.5	24-hour	1	NA	397,807.071	4,883,810.149	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD053	PM2.5	24-hour	1	NA	397,815.264	4,883,804.951	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD054	PM2.5	24-hour	1	NA	397,824.638	4,883,801.984	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD055	PM2.5	24-hour	1	NA	397,834.636	4,883,801.799	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD056	PM2.5	24-hour	1	NA	397,844.634	4,883,801.614	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD057	PM2.5	24-hour	1	NA	397,854.633	4,883,801.429	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD058	PM2.5	24-hour	1	NA	397,864.631	4,883,801.243	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD059	PM2.5	24-hour	1	NA	397,874.629	4,883,801.058	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD060	PM2.5	24-hour	1	NA	397,884.628	4,883,800.873	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD061	PM2.5	24-hour	1	NA	397,894.626	4,883,800.688	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD062	PM2.5	24-hour	1	NA	397,904.624	4,883,800.503	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD063	PM2.5	24-hour	1	NA	397,914.622	4,883,800.318	301.81	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD064	PM2.5	24-hour	1	NA	397,924.621	4,883,800.133	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD065	PM2.5	24-hour	1	NA	397,934.619	4,883,799.947	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD066	PM2.5	24-hour	1	NA	397,944.617	4,883,799.762	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD067	PM2.5	24-hour	1	NA	397,954.616	4,883,799.577	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD068	PM2.5	24-hour	1	NA	397,964.614	4,883,799.392	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD069	PM2.5	24-hour	1	NA	397,975.037	4,883,798.269	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD070	PM2.5	24-hour	1	NA	397,984.930	4,883,797.590	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD071	PM2.5	24-hour	1	NA	397,994.918	4,883,797.099	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD072	PM2.5	24-hour	1	NA	398,004.906	4,883,796.608	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD073	PM2.5	24-hour	1	NA	398,014.893	4,883,796.117	301.8	1.12E-03	1.41E-04	2.84988	4.65	2.65	10	Unpaved sections along Ethanol Loadout route	
									8.19E-02	**1.03E-02**						
FUGI3	GRECPV001	PM2.5	24-hour	1	HROFDY	398,412.344	4,883,870.168	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV002	PM2.5	24-hour	1	HROFDY	398,402.344	4,883,870.168	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV003	PM2.5	24-hour	1	HROFDY	398,392.344	4,883,870.168	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV004	PM2.5	24-hour	1	HROFDY	398,382.410	4,883,869.309	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV005	PM2.5	24-hour	1	HROFDY	398,372.528	4,883,867.775	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV006	PM2.5	24-hour	1	HROFDY	398,362.647	4,883,866.242	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV007	PM2.5	24-hour	1	HROFDY	398,352.765	4,883,864.709	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV008	PM2.5	24-hour	1	HROFDY	398,343.031	4,883,862.471	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV009	PM2.5	24-hour	1	HROFDY	398,333.368	4,883,859.898	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV010	PM2.5	24-hour	1	HROFDY	398,323.704	4,883,857.326	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV011	PM2.5	24-hour	1	HROFDY	398,314.041	4,883,854.753	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV012	PM2.5	24-hour	1	HROFDY	398,304.378	4,883,852.181	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV013	PM2.5	24-hour	1	HROFDY	398,294.714	4,883,849.608	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV014	PM2.5	24-hour	1	HROFDY	398,285.051	4,883,847.036	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV015	PM2.5	24-hour	1	HROFDY	398,275.387	4,883,844.463	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	GRECPV016	PM2.5	24-hour	1	HROFDY	398,265.724	4,883,841.891	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV017	PM2.5	24-hour	1	HROFDY	398,256.060	4,883,839.318	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV018	PM2.5	24-hour	1	HROFDY	398,246.397	4,883,836.746	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV019	PM2.5	24-hour	1	HROFDY	398,236.733	4,883,834.173	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV020	PM2.5	24-hour	1	HROFDY	398,227.070	4,883,831.601	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV021	PM2.5	24-hour	1	HROFDY	398,217.407	4,883,829.028	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV022	PM2.5	24-hour	1	HROFDY	398,207.743	4,883,826.455	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV023	PM2.5	24-hour	1	HROFDY	398,198.080	4,883,823.883	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV024	PM2.5	24-hour	1	HROFDY	398,188.416	4,883,821.310	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV025	PM2.5	24-hour	1	HROFDY	398,178.753	4,883,818.738	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV026	PM2.5	24-hour	1	HROFDY	398,169.089	4,883,816.165	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV027	PM2.5	24-hour	1	HROFDY	398,159.426	4,883,813.593	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															Grain Delivery route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV028	PM2.5	24-hour	1	HROFDY	398,149.674	4,883,811.401	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV029	PM2.5	24-hour	1	HROFDY	398,139.868	4,883,809.440	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV030	PM2.5	24-hour	1	HROFDY	398,130.062	4,883,807.478	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV031	PM2.5	24-hour	1	HROFDY	398,120.256	4,883,805.517	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV032	PM2.5	24-hour	1	HROFDY	398,110.451	4,883,803.556	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV033	PM2.5	24-hour	1	HROFDY	398,100.645	4,883,801.595	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV034	PM2.5	24-hour	1	HROFDY	398,090.839	4,883,799.634	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV035	PM2.5	24-hour	1	HROFDY	398,080.928	4,883,798.731	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV036	PM2.5	24-hour	1	HROFDY	398,070.928	4,883,798.731	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV037	PM2.5	24-hour	1	HROFDY	398,060.928	4,883,798.731	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV038	PM2.5	24-hour	1	HROFDY	398,050.928	4,883,798.731	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV039	PM2.5	24-hour	1	HROFDY	398,040.928	4,883,798.731	301.8	5.64E-03	7.10E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV040	PM2.5	24-hour	1	HROFDY	398,032.482	4,883,803.392	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV041	PM2.5	24-hour	1	HROFDY	398,029.437	4,883,797.408	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV042	PM2.5	24-hour	1	HROFDY	397,809.169	4,883,802.464	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV043	PM2.5	24-hour	1	HROFDY	397,808.734	4,883,792.473	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV044	PM2.5	24-hour	1	HROFDY	397,808.298	4,883,782.483	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV045	PM2.5	24-hour	1	HROFDY	397,807.862	4,883,772.492	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV046	PM2.5	24-hour	1	HROFDY	397,807.426	4,883,762.502	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV047	PM2.5	24-hour	1	HROFDY	397,806.990	4,883,752.511	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV048	PM2.5	24-hour	1	HROFDY	397,806.555	4,883,742.521	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV049	PM2.5	24-hour	1	HROFDY	397,809.988	4,883,733.188	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV050	PM2.5	24-hour	1	HROFDY	397,813.702	4,883,723.904	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	GRECPV051	PM2.5	24-hour	1	HROFDY	397,820.089	4,883,717.833	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV052	PM2.5	24-hour	1	HROFDY	397,829.895	4,883,715.872	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV053	PM2.5	24-hour	1	HROFDY	397,839.634	4,883,715.823	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV054	PM2.5	24-hour	1	HROFDY	397,849.278	4,883,718.467	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV055	PM2.5	24-hour	1	HROFDY	397,897.499	4,883,731.686	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV056	PM2.5	24-hour	1	HROFDY	397,907.143	4,883,734.329	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV057	PM2.5	24-hour	1	HROFDY	397,916.787	4,883,736.973	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV058	PM2.5	24-hour	1	HROFDY	397,926.431	4,883,739.617	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV059	PM2.5	24-hour	1	HROFDY	397,936.076	4,883,742.261	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV060	PM2.5	24-hour	1	HROFDY	397,945.720	4,883,744.904	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV061	PM2.5	24-hour	1	HROFDY	397,955.364	4,883,747.548	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV062	PM2.5	24-hour	1	HROFDY	397,965.008	4,883,750.192	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															Grain Delivery route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV063	PM2.5	24-hour	1	HROFDY	397,974.652	4,883,752.836	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV064	PM2.5	24-hour	1	HROFDY	397,984.297	4,883,755.480	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV065	PM2.5	24-hour	1	HROFDY	397,993.941	4,883,758.123	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV066	PM2.5	24-hour	1	HROFDY	398,003.585	4,883,760.767	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV067	PM2.5	24-hour	1	HROFDY	398,011.275	4,883,766.557	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV068	PM2.5	24-hour	1	HROFDY	398,017.918	4,883,774.031	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV069	PM2.5	24-hour	1	HROFDY	398,022.981	4,883,782.162	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV070	PM2.5	24-hour	1	HROFDY	398,023.586	4,883,792.144	301.8	2.82E-03	3.55E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									3.07E-01	**3.87E-02**						
FUGI3	DDGSPV001	PM2.5	24-hour	1	HROFDY	398,412.344	4,883,870.168	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV002	PM2.5	24-hour	1	HROFDY	398,402.344	4,883,870.168	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV003	PM2.5	24-hour	1	HROFDY	398,392.344	4,883,870.168	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSPV004	PM2.5	24-hour	1	HROFDY	398,382.410	4,883,869.309	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV005	PM2.5	24-hour	1	HROFDY	398,372.528	4,883,867.775	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV006	PM2.5	24-hour	1	HROFDY	398,362.647	4,883,866.242	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV007	PM2.5	24-hour	1	HROFDY	398,352.765	4,883,864.709	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV008	PM2.5	24-hour	1	HROFDY	398,343.031	4,883,862.471	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV009	PM2.5	24-hour	1	HROFDY	398,333.368	4,883,859.898	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV010	PM2.5	24-hour	1	HROFDY	398,323.704	4,883,857.326	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV011	PM2.5	24-hour	1	HROFDY	398,314.041	4,883,854.753	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV012	PM2.5	24-hour	1	HROFDY	398,304.378	4,883,852.181	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV013	PM2.5	24-hour	1	HROFDY	398,294.714	4,883,849.608	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV014	PM2.5	24-hour	1	HROFDY	398,285.051	4,883,847.036	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV015	PM2.5	24-hour	1	HROFDY	398,275.387	4,883,844.463	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															DDGS Loading route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV016	PM2.5	24-hour	1	HROFDY	398,265.724	4,883,841.891	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV017	PM2.5	24-hour	1	HROFDY	398,256.060	4,883,839.318	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV018	PM2.5	24-hour	1	HROFDY	398,246.397	4,883,836.746	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV019	PM2.5	24-hour	1	HROFDY	398,236.733	4,883,834.173	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV020	PM2.5	24-hour	1	HROFDY	398,227.070	4,883,831.601	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV021	PM2.5	24-hour	1	HROFDY	398,217.407	4,883,829.028	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV022	PM2.5	24-hour	1	HROFDY	398,207.743	4,883,826.455	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV023	PM2.5	24-hour	1	HROFDY	398,198.080	4,883,823.883	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV024	PM2.5	24-hour	1	HROFDY	398,188.416	4,883,821.310	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV025	PM2.5	24-hour	1	HROFDY	398,178.753	4,883,818.738	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV026	PM2.5	24-hour	1	HROFDY	398,169.089	4,883,816.165	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV027	PM2.5	24-hour	1	HROFDY	398,159.426	4,883,813.593	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV028	PM2.5	24-hour	1	HROFDY	398,149.674	4,883,811.401	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV029	PM2.5	24-hour	1	HROFDY	398,139.868	4,883,809.440	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV030	PM2.5	24-hour	1	HROFDY	398,130.062	4,883,807.478	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV031	PM2.5	24-hour	1	HROFDY	398,120.256	4,883,805.517	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV032	PM2.5	24-hour	1	HROFDY	398,110.451	4,883,803.556	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV033	PM2.5	24-hour	1	HROFDY	398,100.645	4,883,801.595	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV034	PM2.5	24-hour	1	HROFDY	398,090.839	4,883,799.634	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV035	PM2.5	24-hour	1	HROFDY	398,080.928	4,883,798.731	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV036	PM2.5	24-hour	1	HROFDY	398,070.928	4,883,798.731	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV037	PM2.5	24-hour	1	HROFDY	398,060.928	4,883,798.731	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV038	PM2.5	24-hour	1	HROFDY	398,050.928	4,883,798.731	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSPV039	PM2.5	24-hour	1	HROFDY	398,040.928	4,883,798.731	301.8	9.16E-04	1.15E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV040	PM2.5	24-hour	1	HROFDY	398,032.482	4,883,803.392	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV041	PM2.5	24-hour	1	HROFDY	398,029.437	4,883,797.408	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV042	PM2.5	24-hour	1	HROFDY	397,809.169	4,883,802.464	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV043	PM2.5	24-hour	1	HROFDY	397,808.734	4,883,792.473	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV044	PM2.5	24-hour	1	HROFDY	397,808.298	4,883,782.483	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV045	PM2.5	24-hour	1	HROFDY	397,807.862	4,883,772.492	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV046	PM2.5	24-hour	1	HROFDY	397,807.426	4,883,762.502	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV047	PM2.5	24-hour	1	HROFDY	397,806.990	4,883,752.511	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV048	PM2.5	24-hour	1	HROFDY	397,806.555	4,883,742.521	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV049	PM2.5	24-hour	1	HROFDY	397,809.988	4,883,733.188	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV050	PM2.5	24-hour	1	HROFDY	397,813.702	4,883,723.904	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV051	PM2.5	24-hour	1	HROFDY	397,820.089	4,883,717.833	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV052	PM2.5	24-hour	1	HROFDY	397,829.895	4,883,715.872	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV053	PM2.5	24-hour	1	HROFDY	397,839.634	4,883,715.823	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV054	PM2.5	24-hour	1	HROFDY	397,849.278	4,883,718.467	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV055	PM2.5	24-hour	1	HROFDY	397,897.499	4,883,731.686	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV056	PM2.5	24-hour	1	HROFDY	397,907.143	4,883,734.329	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV057	PM2.5	24-hour	1	HROFDY	397,916.787	4,883,736.973	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV058	PM2.5	24-hour	1	HROFDY	397,926.431	4,883,739.617	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV059	PM2.5	24-hour	1	HROFDY	397,936.076	4,883,742.261	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV060	PM2.5	24-hour	1	HROFDY	397,945.720	4,883,744.904	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV061	PM2.5	24-hour	1	HROFDY	397,955.364	4,883,747.548	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9

																P.M.
FUGI3	DDGSPV062	PM2.5	24-hour	1	HROFDY	397,965.008	4,883,750.192	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV063	PM2.5	24-hour	1	HROFDY	397,974.652	4,883,752.836	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV064	PM2.5	24-hour	1	HROFDY	397,984.297	4,883,755.480	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV065	PM2.5	24-hour	1	HROFDY	397,993.941	4,883,758.123	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV066	PM2.5	24-hour	1	HROFDY	398,003.585	4,883,760.767	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV067	PM2.5	24-hour	1	HROFDY	398,011.275	4,883,766.557	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV068	PM2.5	24-hour	1	HROFDY	398,017.918	4,883,774.031	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV069	PM2.5	24-hour	1	HROFDY	398,022.981	4,883,782.162	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV070	PM2.5	24-hour	1	HROFDY	398,023.586	4,883,792.144	301.8	4.58E-04	5.77E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									4.99E-02	**6.29E-03**						
FUGI3	COILPV001	PM2.5	24-hour	1	NA	398,412.344	4,883,870.168	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV002	PM2.5	24-hour	1	NA	398,402.344	4,883,870.168	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV003	PM2.5	24-hour	1	NA	398,392.344	4,883,870.168	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV004	PM2.5	24-hour	1	NA	398,382.410	4,883,869.309	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul	

															route	
FUGI3	COILPV005	PM2.5	24-hour	1	NA	398,372.528	4,883,867.775	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV006	PM2.5	24-hour	1	NA	398,362.647	4,883,866.242	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV007	PM2.5	24-hour	1	NA	398,352.765	4,883,864.709	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV008	PM2.5	24-hour	1	NA	398,343.031	4,883,862.471	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV009	PM2.5	24-hour	1	NA	398,333.368	4,883,859.898	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV010	PM2.5	24-hour	1	NA	398,323.704	4,883,857.326	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV011	PM2.5	24-hour	1	NA	398,314.041	4,883,854.753	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV012	PM2.5	24-hour	1	NA	398,304.378	4,883,852.181	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV013	PM2.5	24-hour	1	NA	398,294.714	4,883,849.608	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV014	PM2.5	24-hour	1	NA	398,285.051	4,883,847.036	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV015	PM2.5	24-hour	1	NA	398,275.387	4,883,844.463	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV016	PM2.5	24-hour	1	NA	398,265.724	4,883,841.891	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV017	PM2.5	24-hour	1	NA	398,256.060	4,883,839.318	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV018	PM2.5	24-hour	1	NA	398,246.397	4,883,836.746	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV019	PM2.5	24-hour	1	NA	398,236.733	4,883,834.173	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV020	PM2.5	24-hour	1	NA	398,227.070	4,883,831.601	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV021	PM2.5	24-hour	1	NA	398,217.407	4,883,829.028	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV022	PM2.5	24-hour	1	NA	398,207.743	4,883,826.455	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV023	PM2.5	24-hour	1	NA	398,198.080	4,883,823.883	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV024	PM2.5	24-hour	1	NA	398,188.416	4,883,821.310	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul	

															route	
FUGI3	COILPV025	PM2.5	24-hour	1	NA	398,178.753	4,883,818.738	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV026	PM2.5	24-hour	1	NA	398,169.089	4,883,816.165	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV027	PM2.5	24-hour	1	NA	398,159.426	4,883,813.593	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV028	PM2.5	24-hour	1	NA	398,149.674	4,883,811.401	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV029	PM2.5	24-hour	1	NA	398,139.868	4,883,809.440	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV030	PM2.5	24-hour	1	NA	398,130.062	4,883,807.478	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV031	PM2.5	24-hour	1	NA	398,120.256	4,883,805.517	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV032	PM2.5	24-hour	1	NA	398,110.451	4,883,803.556	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV033	PM2.5	24-hour	1	NA	398,100.645	4,883,801.595	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV034	PM2.5	24-hour	1	NA	398,090.839	4,883,799.634	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV035	PM2.5	24-hour	1	NA	398,080.928	4,883,798.731	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV036	PM2.5	24-hour	1	NA	398,070.928	4,883,798.731	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV037	PM2.5	24-hour	1	NA	398,060.928	4,883,798.731	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV038	PM2.5	24-hour	1	NA	398,050.928	4,883,798.731	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV039	PM2.5	24-hour	1	NA	398,040.928	4,883,798.731	301.8	1.84E-04	2.32E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV040	PM2.5	24-hour	1	NA	398,032.482	4,883,803.392	301.8	9.19E-05	1.16E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV041	PM2.5	24-hour	1	NA	398,029.437	4,883,797.408	301.8	9.19E-05	1.16E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
									7.35E-03	**9.27E-04**						
FUGI3	ETOHPV001	PM2.5	24-hour	1	NA	398,412.344	4,883,870.168	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV002	PM2.5	24-hour	1	NA	398,402.344	4,883,870.168	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV003	PM2.5	24-hour	1	NA	398,392.344	4,883,870.168	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	

FUGI3	ETOHPV004	PM2.5	24-hour	1	NA	398,382.410	4,883,869.309	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV005	PM2.5	24-hour	1	NA	398,372.528	4,883,867.775	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV006	PM2.5	24-hour	1	NA	398,362.647	4,883,866.242	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV007	PM2.5	24-hour	1	NA	398,352.765	4,883,864.709	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV008	PM2.5	24-hour	1	NA	398,343.031	4,883,862.471	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV009	PM2.5	24-hour	1	NA	398,333.368	4,883,859.898	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV010	PM2.5	24-hour	1	NA	398,323.704	4,883,857.326	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV011	PM2.5	24-hour	1	NA	398,314.041	4,883,854.753	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV012	PM2.5	24-hour	1	NA	398,304.378	4,883,852.181	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV013	PM2.5	24-hour	1	NA	398,294.714	4,883,849.608	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV014	PM2.5	24-hour	1	NA	398,285.051	4,883,847.036	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV015	PM2.5	24-hour	1	NA	398,275.387	4,883,844.463	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV016	PM2.5	24-hour	1	NA	398,265.724	4,883,841.891	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV017	PM2.5	24-hour	1	NA	398,256.060	4,883,839.318	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV018	PM2.5	24-hour	1	NA	398,246.397	4,883,836.746	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV019	PM2.5	24-hour	1	NA	398,236.733	4,883,834.173	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV020	PM2.5	24-hour	1	NA	398,227.070	4,883,831.601	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV021	PM2.5	24-hour	1	NA	398,217.407	4,883,829.028	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV022	PM2.5	24-hour	1	NA	398,207.743	4,883,826.455	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV023	PM2.5	24-hour	1	NA	398,198.080	4,883,823.883	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV024	PM2.5	24-hour	1	NA	398,188.416	4,883,821.310	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV025	PM2.5	24-hour	1	NA	398,178.753	4,883,818.738	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV026	PM2.5	24-hour	1	NA	398,169.089	4,883,816.165	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV027	PM2.5	24-hour	1	NA	398,159.426	4,883,813.593	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV028	PM2.5	24-hour	1	NA	398,149.674	4,883,811.401	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV029	PM2.5	24-hour	1	NA	398,139.868	4,883,809.440	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV030	PM2.5	24-hour	1	NA	398,130.062	4,883,807.478	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along	

															Ethanol Loadout route	
FUGI3	ETOHPV031	PM2.5	24-hour	1	NA	398,120.256	4,883,805.517	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV032	PM2.5	24-hour	1	NA	398,110.451	4,883,803.556	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV033	PM2.5	24-hour	1	NA	398,100.645	4,883,801.595	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV034	PM2.5	24-hour	1	NA	398,090.839	4,883,799.634	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV035	PM2.5	24-hour	1	NA	398,080.928	4,883,798.731	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV036	PM2.5	24-hour	1	NA	398,070.928	4,883,798.731	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV037	PM2.5	24-hour	1	NA	398,060.928	4,883,798.731	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV038	PM2.5	24-hour	1	NA	398,050.928	4,883,798.731	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV039	PM2.5	24-hour	1	NA	398,040.928	4,883,798.731	301.8	7.08E-04	8.92E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV040	PM2.5	24-hour	1	NA	398,032.482	4,883,803.392	301.8	3.54E-04	4.46E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV041	PM2.5	24-hour	1	NA	398,029.437	4,883,797.408	301.8	3.54E-04	4.46E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
									2.83E-02	**3.57E-03**						
EQUI80 & EQUI99	GRREC1	PM2.5	Annual	1	HROFDY	397,889.095	4,883,734.130	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC2	PM2.5	Annual	1	HROFDY	397,890.533	4,883,729.337	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC3	PM2.5	Annual	1	HROFDY	397,891.836	4,883,724.777	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC4	PM2.5	Annual	1	HROFDY	397,893.139	4,883,719.752	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC5	PM2.5	Annual	1	HROFDY	397,859.255	4,883,726.417	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC6	PM2.5	Annual	1	HROFDY	397,860.693	4,883,721.625	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC7	PM2.5	Annual	1	HROFDY	397,861.996	4,883,717.065	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of

																operation are limited to 5 A.M. - 9 P.M.
EQUI80 & EQUI99	GRREC8	PM2.5	Annual	1	HROFDY	397,863.299	4,883,712.039	301.8	6.68E-03	8.42E-04	2.1336	0.85	6.67	3.66	Grain Receiving Pits - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									5.35E-02	**6.74E-03**						
EQUI52	EQUI521	PM2.5	Annual	1	NA	397,889.095	4,883,734.130	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI522	PM2.5	Annual	1	NA	397,890.533	4,883,729.337	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI523	PM2.5	Annual	1	NA	397,891.836	4,883,724.777	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI524	PM2.5	Annual	1	NA	397,893.139	4,883,719.752	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI525	PM2.5	Annual	1	NA	397,859.255	4,883,726.417	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI526	PM2.5	Annual	1	NA	397,860.693	4,883,721.625	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI527	PM2.5	Annual	1	NA	397,861.996	4,883,717.065	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
EQUI52	EQUI528	PM2.5	Annual	1	NA	397,863.299	4,883,712.039	301.8	3.08E-03	3.88E-04	2.1336	0.85	6.67	3.66	EQUI52 - DDGS to Flat Storage - Uncaptured Emissions	
									2.47E-02	**3.11E-03**						
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD1	PM2.5	Annual	1	HROFDY	397,889.095	4,883,734.130	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD2	PM2.5	Annual	1	HROFDY	397,890.533	4,883,729.337	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD3	PM2.5	Annual	1	HROFDY	397,891.836	4,883,724.777	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD4	PM2.5	Annual	1	HROFDY	397,893.139	4,883,719.752	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98,	DDGLOAD5	PM2.5	Annual	1	HROFDY	397,859.255	4,883,726.417	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited

EQUI117																to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD6	PM2.5	Annual	1	HROFDY	397,860.693	4,883,721.625	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD7	PM2.5	Annual	1	HROFDY	397,861.996	4,883,717.065	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
EQUI81, EQUI92, EQUI98, EQUI117	DDGLOAD8	PM2.5	Annual	1	HROFDY	397,863.299	4,883,712.039	301.8	1.85E-02	2.33E-03	2.1336	0.85	6.67	3.66	DDGS Loading - Uncaptured Emissions	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									1.48E-01	**1.86E-02**						
Insignificant Space Heating	LAKHEAT1	PM2.5	Annual	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT2	PM2.5	Annual	1	NA	397,873.950	4,883,871.800	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT3	PM2.5	Annual	1	NA	398,010.683	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT4	PM2.5	Annual	1	NA	398,010.680	4,883,888.018	301.81	7.45E-04	9.39E-05	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT5	PM2.5	Annual	1	NA	398,019.555	4,883,898.514	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
Insignificant Space Heating	LAKHEAT6	PM2.5	Annual	1	NA	398,130.660	4,883,793.728	301.81	1.27E-03	1.60E-04	1	0.23	0.47	1.00	Insignificant Activities - Space Heating	
									5.51E-03	**6.95E-04**						
FUGI3	GRECRD001	PM2.5	Annual	1	HROFDY	398,025.500	4,883,809.884	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD002	PM2.5	Annual	1	HROFDY	398,025.759	4,883,819.881	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD003	PM2.5	Annual	1	HROFDY	398,026.018	4,883,829.878	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD004	PM2.5	Annual	1	HROFDY	398,026.277	4,883,839.874	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD005	PM2.5	Annual	1	HROFDY	398,026.536	4,883,849.871	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECRD006	PM2.5	Annual	1	HROFDY	398,026.795	4,883,859.868	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD007	PM2.5	Annual	1	HROFDY	398,027.054	4,883,869.864	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD008	PM2.5	Annual	1	HROFDY	398,027.313	4,883,879.861	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD009	PM2.5	Annual	1	HROFDY	398,027.572	4,883,889.858	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD010	PM2.5	Annual	1	HROFDY	398,027.831	4,883,899.854	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD011	PM2.5	Annual	1	HROFDY	398,028.090	4,883,909.851	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD012	PM2.5	Annual	1	HROFDY	398,028.349	4,883,919.848	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD013	PM2.5	Annual	1	HROFDY	398,028.608	4,883,929.844	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD014	PM2.5	Annual	1	HROFDY	398,027.095	4,883,939.416	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD015	PM2.5	Annual	1	HROFDY	398,022.332	4,883,948.209	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD016	PM2.5	Annual	1	HROFDY	398,015.598	4,883,955.189	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD017	PM2.5	Annual	1	HROFDY	398,007.233	4,883,960.669	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECRD018	PM2.5	Annual	1	HROFDY	397,998.454	4,883,964.796	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD019	PM2.5	Annual	1	HROFDY	397,988.455	4,883,964.950	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD020	PM2.5	Annual	1	HROFDY	397,978.456	4,883,965.104	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 021	PM2.5	Annual	1	HROFDY	397,968.457	4,883,965.257	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 022	PM2.5	Annual	1	HROFDY	397,958.458	4,883,965.411	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 023	PM2.5	Annual	1	HROFDY	397,948.460	4,883,965.565	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 024	PM2.5	Annual	1	HROFDY	397,938.461	4,883,965.719	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 025	PM2.5	Annual	1	HROFDY	397,928.462	4,883,965.873	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 026	PM2.5	Annual	1	HROFDY	397,918.463	4,883,966.027	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 027	PM2.5	Annual	1	HROFDY	397,908.464	4,883,966.180	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 028	PM2.5	Annual	1	HROFDY	397,898.465	4,883,966.334	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD	PM2.5	Annual	1	HROFDY	397,888.467	4,883,966.488	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along	running 16 hours / 7

	029														Grain Delivery haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 030	PM2.5	Annual	1	HROFDY	397,878.468	4,883,966.642	301.81	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 031	PM2.5	Annual	1	HROFDY	397,868.487	4,883,966.380	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 032	PM2.5	Annual	1	HROFDY	397,858.539	4,883,965.360	301.78	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 033	PM2.5	Annual	1	HROFDY	397,848.591	4,883,964.339	301.75	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 034	PM2.5	Annual	1	HROFDY	397,839.235	4,883,961.062	301.71	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 035	PM2.5	Annual	1	HROFDY	397,830.336	4,883,956.707	301.69	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 036	PM2.5	Annual	1	HROFDY	397,823.828	4,883,949.114	301.68	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 037	PM2.5	Annual	1	HROFDY	397,817.320	4,883,941.522	301.69	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 038	PM2.5	Annual	1	HROFDY	397,814.835	4,883,932.340	301.71	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 039	PM2.5	Annual	1	HROFDY	397,814.399	4,883,922.350	301.75	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 040	PM2.5	Annual	1	HROFDY	397,813.964	4,883,912.359	301.79	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECRD 041	PM2.5	Annual	1	HROFDY	397,813.528	4,883,902.369	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 042	PM2.5	Annual	1	HROFDY	397,813.092	4,883,892.378	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 043	PM2.5	Annual	1	HROFDY	397,812.656	4,883,882.388	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 044	PM2.5	Annual	1	HROFDY	397,812.220	4,883,872.397	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 045	PM2.5	Annual	1	HROFDY	397,811.784	4,883,862.407	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 046	PM2.5	Annual	1	HROFDY	397,811.349	4,883,852.416	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 047	PM2.5	Annual	1	HROFDY	397,810.913	4,883,842.426	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 048	PM2.5	Annual	1	HROFDY	397,810.477	4,883,832.435	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 049	PM2.5	Annual	1	HROFDY	397,810.041	4,883,822.445	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECRD 050	PM2.5	Annual	1	HROFDY	397,809.605	4,883,812.454	301.8	6.32E-03	7.96E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Grain Delivery haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									3.16E-01	**3.98E-02**						
FUGI3	DDGSRD 001	PM2.5	Annual	1	HROFDY	398,025.500	4,883,809.884	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 002	PM2.5	Annual	1	HROFDY	398,025.759	4,883,819.881	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of

																operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 003	PM2.5	Annual	1	HROFDY	398,026.018	4,883,829.878	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 004	PM2.5	Annual	1	HROFDY	398,026.277	4,883,839.874	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 005	PM2.5	Annual	1	HROFDY	398,026.536	4,883,849.871	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 006	PM2.5	Annual	1	HROFDY	398,026.795	4,883,859.868	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 007	PM2.5	Annual	1	HROFDY	398,027.054	4,883,869.864	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 008	PM2.5	Annual	1	HROFDY	398,027.313	4,883,879.861	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 009	PM2.5	Annual	1	HROFDY	398,027.572	4,883,889.858	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 010	PM2.5	Annual	1	HROFDY	398,027.831	4,883,899.854	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 011	PM2.5	Annual	1	HROFDY	398,028.090	4,883,909.851	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 012	PM2.5	Annual	1	HROFDY	398,028.349	4,883,919.848	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 013	PM2.5	Annual	1	HROFDY	398,028.608	4,883,929.844	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSRD 014	PM2.5	Annual	1	HROFDY	398,027.095	4,883,939.416	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 015	PM2.5	Annual	1	HROFDY	398,022.332	4,883,948.209	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 016	PM2.5	Annual	1	HROFDY	398,015.598	4,883,955.189	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 017	PM2.5	Annual	1	HROFDY	398,007.233	4,883,960.669	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 018	PM2.5	Annual	1	HROFDY	397,998.454	4,883,964.796	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 019	PM2.5	Annual	1	HROFDY	397,988.455	4,883,964.950	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 020	PM2.5	Annual	1	HROFDY	397,978.456	4,883,965.104	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 021	PM2.5	Annual	1	HROFDY	397,968.457	4,883,965.257	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 022	PM2.5	Annual	1	HROFDY	397,958.458	4,883,965.411	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 023	PM2.5	Annual	1	HROFDY	397,948.460	4,883,965.565	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 024	PM2.5	Annual	1	HROFDY	397,938.461	4,883,965.719	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 025	PM2.5	Annual	1	HROFDY	397,928.462	4,883,965.873	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 026	PM2.5	Annual	1	HROFDY	397,918.463	4,883,966.027	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 027	PM2.5	Annual	1	HROFDY	397,908.464	4,883,966.180	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 028	PM2.5	Annual	1	HROFDY	397,898.465	4,883,966.334	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 029	PM2.5	Annual	1	HROFDY	397,888.467	4,883,966.488	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 030	PM2.5	Annual	1	HROFDY	397,878.468	4,883,966.642	301.81	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 031	PM2.5	Annual	1	HROFDY	397,868.487	4,883,966.380	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 032	PM2.5	Annual	1	HROFDY	397,858.539	4,883,965.360	301.78	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 033	PM2.5	Annual	1	HROFDY	397,848.591	4,883,964.339	301.75	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 034	PM2.5	Annual	1	HROFDY	397,839.235	4,883,961.062	301.71	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 035	PM2.5	Annual	1	HROFDY	397,830.336	4,883,956.707	301.69	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 036	PM2.5	Annual	1	HROFDY	397,823.828	4,883,949.114	301.68	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD	PM2.5	Annual	1	HROFDY	397,817.320	4,883,941.522	301.69	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along	running 16 hours / 7

	037														DDGS Loadout haul route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 038	PM2.5	Annual	1	HROFDY	397,814.835	4,883,932.340	301.71	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 039	PM2.5	Annual	1	HROFDY	397,814.399	4,883,922.350	301.75	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 040	PM2.5	Annual	1	HROFDY	397,813.964	4,883,912.359	301.79	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 041	PM2.5	Annual	1	HROFDY	397,813.528	4,883,902.369	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 042	PM2.5	Annual	1	HROFDY	397,813.092	4,883,892.378	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 043	PM2.5	Annual	1	HROFDY	397,812.656	4,883,882.388	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 044	PM2.5	Annual	1	HROFDY	397,812.220	4,883,872.397	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 045	PM2.5	Annual	1	HROFDY	397,811.784	4,883,862.407	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD 046	PM2.5	Annual	1	HROFDY	397,811.349	4,883,852.416	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD047	PM2.5	Annual	1	HROFDY	397,810.913	4,883,842.426	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD048	PM2.5	Annual	1	HROFDY	397,810.477	4,883,832.435	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSRD049	PM2.5	Annual	1	HROFDY	397,810.041	4,883,822.445	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSRD050	PM2.5	Annual	1	HROFDY	397,809.605	4,883,812.454	301.8	1.03E-03	1.29E-04	2.84988	4.65	2.65	10.00	Unpaved sections along DDGS Loadout haul route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									5.14E-02	**6.47E-03**						
FUGI3	COILRD001	PM2.5	Annual	1	NA	398,023.506	4,883,800.983	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD002	PM2.5	Annual	1	NA	398,025.500	4,883,809.884	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD003	PM2.5	Annual	1	NA	398,025.759	4,883,819.881	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD004	PM2.5	Annual	1	NA	398,026.018	4,883,829.878	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD005	PM2.5	Annual	1	NA	398,026.277	4,883,839.874	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD006	PM2.5	Annual	1	NA	398,026.536	4,883,849.871	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD007	PM2.5	Annual	1	NA	398,026.795	4,883,859.868	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD008	PM2.5	Annual	1	NA	398,027.054	4,883,869.864	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD009	PM2.5	Annual	1	NA	398,027.313	4,883,879.861	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD010	PM2.5	Annual	1	NA	398,027.572	4,883,889.858	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD011	PM2.5	Annual	1	NA	398,027.831	4,883,899.854	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD012	PM2.5	Annual	1	NA	398,028.090	4,883,909.851	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD013	PM2.5	Annual	1	NA	398,028.349	4,883,919.848	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD014	PM2.5	Annual	1	NA	398,028.608	4,883,929.844	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD015	PM2.5	Annual	1	NA	398,027.095	4,883,939.416	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along	

															Corn Oil and CO2 haul route	
FUGI3	COILRD016	PM2.5	Annual	1	NA	398,022.332	4,883,948.209	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD017	PM2.5	Annual	1	NA	398,015.598	4,883,955.189	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD018	PM2.5	Annual	1	NA	398,007.233	4,883,960.669	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD019	PM2.5	Annual	1	NA	397,998.454	4,883,964.796	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD020	PM2.5	Annual	1	NA	397,988.455	4,883,964.950	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD021	PM2.5	Annual	1	NA	397,976.457	4,883,959.646	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD022	PM2.5	Annual	1	NA	397,969.224	4,883,952.741	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD023	PM2.5	Annual	1	NA	397,966.977	4,883,943.587	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD024	PM2.5	Annual	1	NA	397,966.589	4,883,933.595	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD025	PM2.5	Annual	1	NA	397,966.201	4,883,923.602	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD026	PM2.5	Annual	1	NA	397,965.813	4,883,913.610	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD027	PM2.5	Annual	1	NA	397,965.425	4,883,903.617	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD028	PM2.5	Annual	1	NA	397,965.037	4,883,893.625	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD029	PM2.5	Annual	1	NA	397,964.649	4,883,883.632	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD030	PM2.5	Annual	1	NA	397,964.261	4,883,873.640	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD031	PM2.5	Annual	1	NA	397,963.873	4,883,863.647	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD032	PM2.5	Annual	1	NA	397,963.485	4,883,853.655	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	

FUGI3	COILRD033	PM2.5	Annual	1	NA	397,963.096	4,883,843.662	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD034	PM2.5	Annual	1	NA	397,962.708	4,883,833.670	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD035	PM2.5	Annual	1	NA	397,962.320	4,883,823.677	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD036	PM2.5	Annual	1	NA	397,962.544	4,883,813.886	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD037	PM2.5	Annual	1	NA	397,968.790	4,883,806.077	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD038	PM2.5	Annual	1	NA	397,975.037	4,883,798.269	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD039	PM2.5	Annual	1	NA	397,984.930	4,883,797.590	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD040	PM2.5	Annual	1	NA	397,994.918	4,883,797.099	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD041	PM2.5	Annual	1	NA	398,004.906	4,883,796.608	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
FUGI3	COILRD042	PM2.5	Annual	1	NA	398,014.893	4,883,796.117	301.8	3.35E-04	4.22E-05	2.84988	4.65	2.65	10.00	Unpaved sections along Corn Oil and CO2 haul route	
									1.41E-02	**1.77E-03**						
FUGI3	ETOHRD001	PM2.5	Annual	1	NA	398,023.506	4,883,800.983	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD002	PM2.5	Annual	1	NA	398,025.500	4,883,809.884	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD003	PM2.5	Annual	1	NA	398,025.759	4,883,819.881	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD004	PM2.5	Annual	1	NA	398,026.018	4,883,829.878	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD005	PM2.5	Annual	1	NA	398,026.277	4,883,839.874	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD006	PM2.5	Annual	1	NA	398,026.536	4,883,849.871	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD007	PM2.5	Annual	1	NA	398,026.795	4,883,859.868	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD008	PM2.5	Annual	1	NA	398,027.054	4,883,869.864	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD009	PM2.5	Annual	1	NA	398,027.313	4,883,879.861	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD010	PM2.5	Annual	1	NA	398,027.572	4,883,889.858	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD011	PM2.5	Annual	1	NA	398,027.831	4,883,899.854	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD012	PM2.5	Annual	1	NA	398,028.090	4,883,909.851	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD013	PM2.5	Annual	1	NA	398,028.349	4,883,919.848	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD014	PM2.5	Annual	1	NA	398,028.608	4,883,929.844	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD015	PM2.5	Annual	1	NA	398,027.095	4,883,939.416	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD016	PM2.5	Annual	1	NA	398,022.332	4,883,948.209	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD017	PM2.5	Annual	1	NA	398,015.598	4,883,955.189	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD018	PM2.5	Annual	1	NA	398,007.233	4,883,960.669	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD019	PM2.5	Annual	1	NA	397,998.454	4,883,964.796	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD020	PM2.5	Annual	1	NA	397,988.455	4,883,964.950	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD021	PM2.5	Annual	1	NA	397,978.456	4,883,965.104	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD022	PM2.5	Annual	1	NA	397,968.457	4,883,965.257	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD023	PM2.5	Annual	1	NA	397,958.458	4,883,965.411	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD024	PM2.5	Annual	1	NA	397,948.460	4,883,965.565	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD025	PM2.5	Annual	1	NA	397,938.461	4,883,965.719	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD026	PM2.5	Annual	1	NA	397,928.462	4,883,965.873	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD027	PM2.5	Annual	1	NA	397,918.463	4,883,966.027	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD028	PM2.5	Annual	1	NA	397,908.464	4,883,966.180	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD029	PM2.5	Annual	1	NA	397,898.465	4,883,966.334	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD030	PM2.5	Annual	1	NA	397,888.467	4,883,966.488	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD031	PM2.5	Annual	1	NA	397,878.468	4,883,966.642	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD032	PM2.5	Annual	1	NA	397,868.487	4,883,966.380	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD033	PM2.5	Annual	1	NA	397,858.539	4,883,965.360	301.78	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD034	PM2.5	Annual	1	NA	397,848.591	4,883,964.339	301.75	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD035	PM2.5	Annual	1	NA	397,839.235	4,883,961.062	301.71	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD036	PM2.5	Annual	1	NA	397,830.336	4,883,956.707	301.69	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD037	PM2.5	Annual	1	NA	397,823.828	4,883,949.114	301.68	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD038	PM2.5	Annual	1	NA	397,817.320	4,883,941.522	301.69	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along	

															Ethanol Loadout route	
FUGI3	ETOHRD039	PM2.5	Annual	1	NA	397,814.835	4,883,932.340	301.71	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD040	PM2.5	Annual	1	NA	397,808.745	4,883,927.099	301.75	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD041	PM2.5	Annual	1	NA	397,805.660	4,883,917.590	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD042	PM2.5	Annual	1	NA	397,803.370	4,883,907.856	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD043	PM2.5	Annual	1	NA	397,801.079	4,883,898.122	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD044	PM2.5	Annual	1	NA	397,800.572	4,883,888.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD045	PM2.5	Annual	1	NA	397,800.572	4,883,878.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD046	PM2.5	Annual	1	NA	397,800.572	4,883,868.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD047	PM2.5	Annual	1	NA	397,800.572	4,883,858.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD048	PM2.5	Annual	1	NA	397,800.572	4,883,848.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD049	PM2.5	Annual	1	NA	397,800.572	4,883,838.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD050	PM2.5	Annual	1	NA	397,800.572	4,883,828.181	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD051	PM2.5	Annual	1	NA	397,801.524	4,883,818.469	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD052	PM2.5	Annual	1	NA	397,807.071	4,883,810.149	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD053	PM2.5	Annual	1	NA	397,815.264	4,883,804.951	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD054	PM2.5	Annual	1	NA	397,824.638	4,883,801.984	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD055	PM2.5	Annual	1	NA	397,834.636	4,883,801.799	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD056	PM2.5	Annual	1	NA	397,844.634	4,883,801.614	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD057	PM2.5	Annual	1	NA	397,854.633	4,883,801.429	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD058	PM2.5	Annual	1	NA	397,864.631	4,883,801.243	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD059	PM2.5	Annual	1	NA	397,874.629	4,883,801.058	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD060	PM2.5	Annual	1	NA	397,884.628	4,883,800.873	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD061	PM2.5	Annual	1	NA	397,894.626	4,883,800.688	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD062	PM2.5	Annual	1	NA	397,904.624	4,883,800.503	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD063	PM2.5	Annual	1	NA	397,914.622	4,883,800.318	301.81	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD064	PM2.5	Annual	1	NA	397,924.621	4,883,800.133	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	

FUGI3	ETOHRD065	PM2.5	Annual	1	NA	397,934.619	4,883,799.947	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD066	PM2.5	Annual	1	NA	397,944.617	4,883,799.762	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD067	PM2.5	Annual	1	NA	397,954.616	4,883,799.577	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD068	PM2.5	Annual	1	NA	397,964.614	4,883,799.392	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD069	PM2.5	Annual	1	NA	397,975.037	4,883,798.269	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD070	PM2.5	Annual	1	NA	397,984.930	4,883,797.590	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD071	PM2.5	Annual	1	NA	397,994.918	4,883,797.099	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD072	PM2.5	Annual	1	NA	398,004.906	4,883,796.608	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
FUGI3	ETOHRD073	PM2.5	Annual	1	NA	398,014.893	4,883,796.117	301.8	7.99E-04	1.01E-04	2.84988	4.65	2.65	10.00	Unpaved sections along Ethanol Loadout route	
									5.83E-02	**7.35E-03**						
FUGI3	GRECPV001	PM2.5	Annual	1	HROFDY	398,412.344	4,883,870.168	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV002	PM2.5	Annual	1	HROFDY	398,402.344	4,883,870.168	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV003	PM2.5	Annual	1	HROFDY	398,392.344	4,883,870.168	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV004	PM2.5	Annual	1	HROFDY	398,382.410	4,883,869.309	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV005	PM2.5	Annual	1	HROFDY	398,372.528	4,883,867.775	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV006	PM2.5	Annual	1	HROFDY	398,362.647	4,883,866.242	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV007	PM2.5	Annual	1	HROFDY	398,352.765	4,883,864.709	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV008	PM2.5	Annual	1	HROFDY	398,343.031	4,883,862.471	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of

																operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV009	PM2.5	Annual	1	HROFDY	398,333.368	4,883,859.898	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV010	PM2.5	Annual	1	HROFDY	398,323.704	4,883,857.326	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV011	PM2.5	Annual	1	HROFDY	398,314.041	4,883,854.753	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV012	PM2.5	Annual	1	HROFDY	398,304.378	4,883,852.181	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV013	PM2.5	Annual	1	HROFDY	398,294.714	4,883,849.608	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV014	PM2.5	Annual	1	HROFDY	398,285.051	4,883,847.036	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV015	PM2.5	Annual	1	HROFDY	398,275.387	4,883,844.463	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV016	PM2.5	Annual	1	HROFDY	398,265.724	4,883,841.891	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV017	PM2.5	Annual	1	HROFDY	398,256.060	4,883,839.318	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV018	PM2.5	Annual	1	HROFDY	398,246.397	4,883,836.746	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV019	PM2.5	Annual	1	HROFDY	398,236.733	4,883,834.173	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV020	PM2.5	Annual	1	HROFDY	398,227.070	4,883,831.601	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV021	PM2.5	Annual	1	HROFDY	398,217.407	4,883,829.028	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV022	PM2.5	Annual	1	HROFDY	398,207.743	4,883,826.455	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV023	PM2.5	Annual	1	HROFDY	398,198.080	4,883,823.883	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV024	PM2.5	Annual	1	HROFDY	398,188.416	4,883,821.310	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV025	PM2.5	Annual	1	HROFDY	398,178.753	4,883,818.738	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV026	PM2.5	Annual	1	HROFDY	398,169.089	4,883,816.165	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV027	PM2.5	Annual	1	HROFDY	398,159.426	4,883,813.593	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV028	PM2.5	Annual	1	HROFDY	398,149.674	4,883,811.401	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV029	PM2.5	Annual	1	HROFDY	398,139.868	4,883,809.440	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV030	PM2.5	Annual	1	HROFDY	398,130.062	4,883,807.478	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV031	PM2.5	Annual	1	HROFDY	398,120.256	4,883,805.517	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECPV032	PM2.5	Annual	1	HROFDY	398,110.451	4,883,803.556	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV033	PM2.5	Annual	1	HROFDY	398,100.645	4,883,801.595	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV034	PM2.5	Annual	1	HROFDY	398,090.839	4,883,799.634	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV035	PM2.5	Annual	1	HROFDY	398,080.928	4,883,798.731	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV036	PM2.5	Annual	1	HROFDY	398,070.928	4,883,798.731	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV037	PM2.5	Annual	1	HROFDY	398,060.928	4,883,798.731	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV038	PM2.5	Annual	1	HROFDY	398,050.928	4,883,798.731	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV039	PM2.5	Annual	1	HROFDY	398,040.928	4,883,798.731	301.8	5.29E-03	6.66E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV040	PM2.5	Annual	1	HROFDY	398,032.482	4,883,803.392	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV041	PM2.5	Annual	1	HROFDY	398,029.437	4,883,797.408	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV042	PM2.5	Annual	1	HROFDY	397,809.169	4,883,802.464	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV043	PM2.5	Annual	1	HROFDY	397,808.734	4,883,792.473	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															Grain Delivery route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV044	PM2.5	Annual	1	HROFDY	397,808.298	4,883,782.483	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV045	PM2.5	Annual	1	HROFDY	397,807.862	4,883,772.492	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV046	PM2.5	Annual	1	HROFDY	397,807.426	4,883,762.502	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV047	PM2.5	Annual	1	HROFDY	397,806.990	4,883,752.511	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV048	PM2.5	Annual	1	HROFDY	397,806.555	4,883,742.521	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV049	PM2.5	Annual	1	HROFDY	397,809.988	4,883,733.188	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV050	PM2.5	Annual	1	HROFDY	397,813.702	4,883,723.904	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV051	PM2.5	Annual	1	HROFDY	397,820.089	4,883,717.833	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV052	PM2.5	Annual	1	HROFDY	397,829.895	4,883,715.872	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV053	PM2.5	Annual	1	HROFDY	397,839.634	4,883,715.823	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV054	PM2.5	Annual	1	HROFDY	397,849.278	4,883,718.467	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	GRECPV055	PM2.5	Annual	1	HROFDY	397,897.499	4,883,731.686	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV056	PM2.5	Annual	1	HROFDY	397,907.143	4,883,734.329	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV057	PM2.5	Annual	1	HROFDY	397,916.787	4,883,736.973	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV058	PM2.5	Annual	1	HROFDY	397,926.431	4,883,739.617	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV059	PM2.5	Annual	1	HROFDY	397,936.076	4,883,742.261	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV060	PM2.5	Annual	1	HROFDY	397,945.720	4,883,744.904	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV061	PM2.5	Annual	1	HROFDY	397,955.364	4,883,747.548	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV062	PM2.5	Annual	1	HROFDY	397,965.008	4,883,750.192	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV063	PM2.5	Annual	1	HROFDY	397,974.652	4,883,752.836	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV064	PM2.5	Annual	1	HROFDY	397,984.297	4,883,755.480	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV065	PM2.5	Annual	1	HROFDY	397,993.941	4,883,758.123	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV066	PM2.5	Annual	1	HROFDY	398,003.585	4,883,760.767	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	GRECPV067	PM2.5	Annual	1	HROFDY	398,011.275	4,883,766.557	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV068	PM2.5	Annual	1	HROFDY	398,017.918	4,883,774.031	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV069	PM2.5	Annual	1	HROFDY	398,022.981	4,883,782.162	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	GRECPV070	PM2.5	Annual	1	HROFDY	398,023.586	4,883,792.144	301.8	2.64E-03	3.33E-04	2.84988	4.65	2.65	10.00	Paved sections along Grain Delivery route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									2.88E-01	**3.63E-02**						
FUGI3	DDGSPV001	PM2.5	Annual	1	HROFDY	398,412.344	4,883,870.168	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV002	PM2.5	Annual	1	HROFDY	398,402.344	4,883,870.168	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV003	PM2.5	Annual	1	HROFDY	398,392.344	4,883,870.168	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV004	PM2.5	Annual	1	HROFDY	398,382.410	4,883,869.309	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV005	PM2.5	Annual	1	HROFDY	398,372.528	4,883,867.775	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV006	PM2.5	Annual	1	HROFDY	398,362.647	4,883,866.242	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV007	PM2.5	Annual	1	HROFDY	398,352.765	4,883,864.709	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV008	PM2.5	Annual	1	HROFDY	398,343.031	4,883,862.471	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV009	PM2.5	Annual	1	HROFDY	398,333.368	4,883,859.898	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV010	PM2.5	Annual	1	HROFDY	398,323.704	4,883,857.326	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV011	PM2.5	Annual	1	HROFDY	398,314.041	4,883,854.753	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV012	PM2.5	Annual	1	HROFDY	398,304.378	4,883,852.181	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV013	PM2.5	Annual	1	HROFDY	398,294.714	4,883,849.608	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV014	PM2.5	Annual	1	HROFDY	398,285.051	4,883,847.036	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV015	PM2.5	Annual	1	HROFDY	398,275.387	4,883,844.463	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV016	PM2.5	Annual	1	HROFDY	398,265.724	4,883,841.891	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV017	PM2.5	Annual	1	HROFDY	398,256.060	4,883,839.318	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV018	PM2.5	Annual	1	HROFDY	398,246.397	4,883,836.746	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV019	PM2.5	Annual	1	HROFDY	398,236.733	4,883,834.173	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSPV020	PM2.5	Annual	1	HROFDY	398,227.070	4,883,831.601	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV021	PM2.5	Annual	1	HROFDY	398,217.407	4,883,829.028	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV022	PM2.5	Annual	1	HROFDY	398,207.743	4,883,826.455	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV023	PM2.5	Annual	1	HROFDY	398,198.080	4,883,823.883	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV024	PM2.5	Annual	1	HROFDY	398,188.416	4,883,821.310	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV025	PM2.5	Annual	1	HROFDY	398,178.753	4,883,818.738	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV026	PM2.5	Annual	1	HROFDY	398,169.089	4,883,816.165	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV027	PM2.5	Annual	1	HROFDY	398,159.426	4,883,813.593	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV028	PM2.5	Annual	1	HROFDY	398,149.674	4,883,811.401	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV029	PM2.5	Annual	1	HROFDY	398,139.868	4,883,809.440	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV030	PM2.5	Annual	1	HROFDY	398,130.062	4,883,807.478	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV031	PM2.5	Annual	1	HROFDY	398,120.256	4,883,805.517	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															DDGS Loading route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV032	PM2.5	Annual	1	HROFDY	398,110.451	4,883,803.556	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV033	PM2.5	Annual	1	HROFDY	398,100.645	4,883,801.595	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV034	PM2.5	Annual	1	HROFDY	398,090.839	4,883,799.634	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV035	PM2.5	Annual	1	HROFDY	398,080.928	4,883,798.731	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV036	PM2.5	Annual	1	HROFDY	398,070.928	4,883,798.731	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV037	PM2.5	Annual	1	HROFDY	398,060.928	4,883,798.731	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV038	PM2.5	Annual	1	HROFDY	398,050.928	4,883,798.731	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV039	PM2.5	Annual	1	HROFDY	398,040.928	4,883,798.731	301.8	8.59E-04	1.08E-04	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV040	PM2.5	Annual	1	HROFDY	398,032.482	4,883,803.392	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV041	PM2.5	Annual	1	HROFDY	398,029.437	4,883,797.408	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV042	PM2.5	Annual	1	HROFDY	397,809.169	4,883,802.464	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.

FUGI3	DDGSPV043	PM2.5	Annual	1	HROFDY	397,808.734	4,883,792.473	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV044	PM2.5	Annual	1	HROFDY	397,808.298	4,883,782.483	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV045	PM2.5	Annual	1	HROFDY	397,807.862	4,883,772.492	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV046	PM2.5	Annual	1	HROFDY	397,807.426	4,883,762.502	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV047	PM2.5	Annual	1	HROFDY	397,806.990	4,883,752.511	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV048	PM2.5	Annual	1	HROFDY	397,806.555	4,883,742.521	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV049	PM2.5	Annual	1	HROFDY	397,809.988	4,883,733.188	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV050	PM2.5	Annual	1	HROFDY	397,813.702	4,883,723.904	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV051	PM2.5	Annual	1	HROFDY	397,820.089	4,883,717.833	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV052	PM2.5	Annual	1	HROFDY	397,829.895	4,883,715.872	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV053	PM2.5	Annual	1	HROFDY	397,839.634	4,883,715.823	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV054	PM2.5	Annual	1	HROFDY	397,849.278	4,883,718.467	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited

																to 5 A.M. - 9 P.M.
FUGI3	DDGSPV055	PM2.5	Annual	1	HROFDY	397,897.499	4,883,731.686	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV056	PM2.5	Annual	1	HROFDY	397,907.143	4,883,734.329	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV057	PM2.5	Annual	1	HROFDY	397,916.787	4,883,736.973	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV058	PM2.5	Annual	1	HROFDY	397,926.431	4,883,739.617	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV059	PM2.5	Annual	1	HROFDY	397,936.076	4,883,742.261	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV060	PM2.5	Annual	1	HROFDY	397,945.720	4,883,744.904	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV061	PM2.5	Annual	1	HROFDY	397,955.364	4,883,747.548	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV062	PM2.5	Annual	1	HROFDY	397,965.008	4,883,750.192	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV063	PM2.5	Annual	1	HROFDY	397,974.652	4,883,752.836	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV064	PM2.5	Annual	1	HROFDY	397,984.297	4,883,755.480	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV065	PM2.5	Annual	1	HROFDY	397,993.941	4,883,758.123	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV066	PM2.5	Annual	1	HROFDY	398,003.585	4,883,760.767	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along	running 16 hours / 7

															DDGS Loading route	days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV067	PM2.5	Annual	1	HROFDY	398,011.275	4,883,766.557	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV068	PM2.5	Annual	1	HROFDY	398,017.918	4,883,774.031	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV069	PM2.5	Annual	1	HROFDY	398,022.981	4,883,782.162	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
FUGI3	DDGSPV070	PM2.5	Annual	1	HROFDY	398,023.586	4,883,792.144	301.8	4.30E-04	5.41E-05	2.84988	4.65	2.65	10.00	Paved sections along DDGS Loading route	running 16 hours / 7 days - hours of operation are limited to 5 A.M. - 9 P.M.
									4.68E-02	**5.90E-03**						
FUGI3	COILPV001	PM2.5	Annual	1	NA	398,412.344	4,883,870.168	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV002	PM2.5	Annual	1	NA	398,402.344	4,883,870.168	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV003	PM2.5	Annual	1	NA	398,392.344	4,883,870.168	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV004	PM2.5	Annual	1	NA	398,382.410	4,883,869.309	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV005	PM2.5	Annual	1	NA	398,372.528	4,883,867.775	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV006	PM2.5	Annual	1	NA	398,362.647	4,883,866.242	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV007	PM2.5	Annual	1	NA	398,352.765	4,883,864.709	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV008	PM2.5	Annual	1	NA	398,343.031	4,883,862.471	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV009	PM2.5	Annual	1	NA	398,333.368	4,883,859.898	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV010	PM2.5	Annual	1	NA	398,323.704	4,883,857.326	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV011	PM2.5	Annual	1	NA	398,314.041	4,883,854.753	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV012	PM2.5	Annual	1	NA	398,304.378	4,883,852.181	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul	

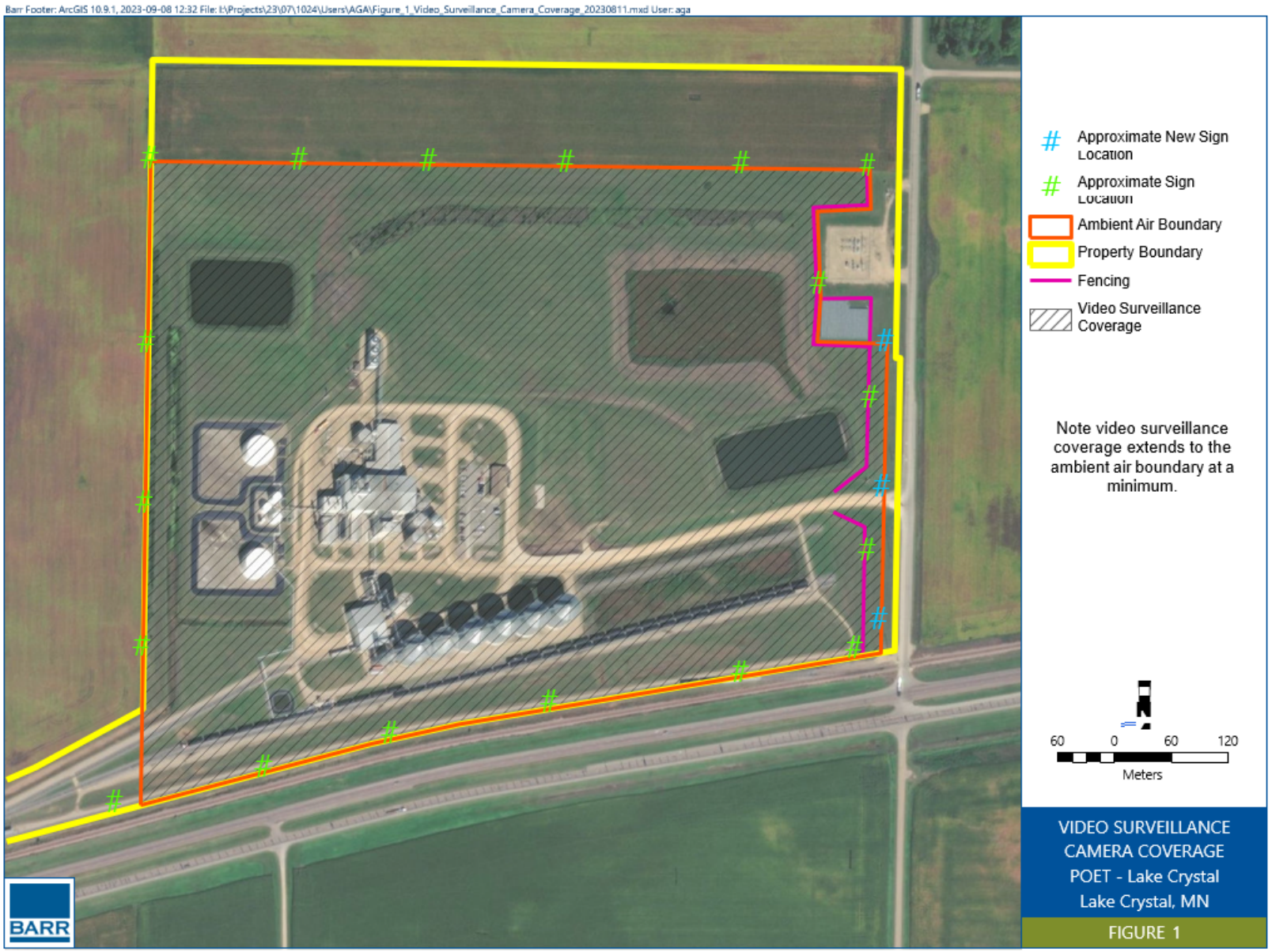
															route	
FUGI3	COILPV013	PM2.5	Annual	1	NA	398,294.714	4,883,849.608	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV014	PM2.5	Annual	1	NA	398,285.051	4,883,847.036	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV015	PM2.5	Annual	1	NA	398,275.387	4,883,844.463	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV016	PM2.5	Annual	1	NA	398,265.724	4,883,841.891	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV017	PM2.5	Annual	1	NA	398,256.060	4,883,839.318	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV018	PM2.5	Annual	1	NA	398,246.397	4,883,836.746	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV019	PM2.5	Annual	1	NA	398,236.733	4,883,834.173	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV020	PM2.5	Annual	1	NA	398,227.070	4,883,831.601	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV021	PM2.5	Annual	1	NA	398,217.407	4,883,829.028	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV022	PM2.5	Annual	1	NA	398,207.743	4,883,826.455	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV023	PM2.5	Annual	1	NA	398,198.080	4,883,823.883	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV024	PM2.5	Annual	1	NA	398,188.416	4,883,821.310	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV025	PM2.5	Annual	1	NA	398,178.753	4,883,818.738	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV026	PM2.5	Annual	1	NA	398,169.089	4,883,816.165	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV027	PM2.5	Annual	1	NA	398,159.426	4,883,813.593	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV028	PM2.5	Annual	1	NA	398,149.674	4,883,811.401	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV029	PM2.5	Annual	1	NA	398,139.868	4,883,809.440	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV030	PM2.5	Annual	1	NA	398,130.062	4,883,807.478	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV031	PM2.5	Annual	1	NA	398,120.256	4,883,805.517	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV032	PM2.5	Annual	1	NA	398,110.451	4,883,803.556	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul	

															route	
FUGI3	COILPV033	PM2.5	Annual	1	NA	398,100.645	4,883,801.595	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV034	PM2.5	Annual	1	NA	398,090.839	4,883,799.634	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV035	PM2.5	Annual	1	NA	398,080.928	4,883,798.731	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV036	PM2.5	Annual	1	NA	398,070.928	4,883,798.731	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV037	PM2.5	Annual	1	NA	398,060.928	4,883,798.731	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV038	PM2.5	Annual	1	NA	398,050.928	4,883,798.731	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV039	PM2.5	Annual	1	NA	398,040.928	4,883,798.731	301.8	1.73E-04	2.17E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV040	PM2.5	Annual	1	NA	398,032.482	4,883,803.392	301.8	8.63E-05	1.09E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
FUGI3	COILPV041	PM2.5	Annual	1	NA	398,029.437	4,883,797.408	301.8	8.63E-05	1.09E-05	2.84988	4.65	2.65	10.00	Paved sections along Corn Oil and CO2 haul route	
									6.90E-03	**8.70E-04**						
FUGI3	ETOHPV001	PM2.5	Annual	1	NA	398,412.344	4,883,870.168	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV002	PM2.5	Annual	1	NA	398,402.344	4,883,870.168	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV003	PM2.5	Annual	1	NA	398,392.344	4,883,870.168	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV004	PM2.5	Annual	1	NA	398,382.410	4,883,869.309	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV005	PM2.5	Annual	1	NA	398,372.528	4,883,867.775	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV006	PM2.5	Annual	1	NA	398,362.647	4,883,866.242	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV007	PM2.5	Annual	1	NA	398,352.765	4,883,864.709	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV008	PM2.5	Annual	1	NA	398,343.031	4,883,862.471	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV009	PM2.5	Annual	1	NA	398,333.368	4,883,859.898	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV010	PM2.5	Annual	1	NA	398,323.704	4,883,857.326	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV011	PM2.5	Annual	1	NA	398,314.041	4,883,854.753	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV012	PM2.5	Annual	1	NA	398,304.378	4,883,852.181	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV013	PM2.5	Annual	1	NA	398,294.714	4,883,849.608	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV014	PM2.5	Annual	1	NA	398,285.051	4,883,847.036	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along	

															Ethanol Loadout route	
FUGI3	ETOHPV015	PM2.5	Annual	1	NA	398,275.387	4,883,844.463	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV016	PM2.5	Annual	1	NA	398,265.724	4,883,841.891	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV017	PM2.5	Annual	1	NA	398,256.060	4,883,839.318	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV018	PM2.5	Annual	1	NA	398,246.397	4,883,836.746	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV019	PM2.5	Annual	1	NA	398,236.733	4,883,834.173	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV020	PM2.5	Annual	1	NA	398,227.070	4,883,831.601	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV021	PM2.5	Annual	1	NA	398,217.407	4,883,829.028	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV022	PM2.5	Annual	1	NA	398,207.743	4,883,826.455	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV023	PM2.5	Annual	1	NA	398,198.080	4,883,823.883	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV024	PM2.5	Annual	1	NA	398,188.416	4,883,821.310	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV025	PM2.5	Annual	1	NA	398,178.753	4,883,818.738	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV026	PM2.5	Annual	1	NA	398,169.089	4,883,816.165	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV027	PM2.5	Annual	1	NA	398,159.426	4,883,813.593	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV028	PM2.5	Annual	1	NA	398,149.674	4,883,811.401	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV029	PM2.5	Annual	1	NA	398,139.868	4,883,809.440	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV030	PM2.5	Annual	1	NA	398,130.062	4,883,807.478	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV031	PM2.5	Annual	1	NA	398,120.256	4,883,805.517	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV032	PM2.5	Annual	1	NA	398,110.451	4,883,803.556	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV033	PM2.5	Annual	1	NA	398,100.645	4,883,801.595	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV034	PM2.5	Annual	1	NA	398,090.839	4,883,799.634	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV035	PM2.5	Annual	1	NA	398,080.928	4,883,798.731	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV036	PM2.5	Annual	1	NA	398,070.928	4,883,798.731	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV037	PM2.5	Annual	1	NA	398,060.928	4,883,798.731	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV038	PM2.5	Annual	1	NA	398,050.928	4,883,798.731	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV039	PM2.5	Annual	1	NA	398,040.928	4,883,798.731	301.8	6.64E-04	8.37E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
FUGI3	ETOHPV040	PM2.5	Annual	1	NA	398,032.482	4,883,803.392	301.8	3.32E-04	4.18E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	

FUGI3	ETOHPV041	PM2.5	Annual	1	NA	398,029.437	4,883,797.408	301.8	3.32E-04	4.18E-05	2.84988	4.65	2.65	10.00	Paved sections along Ethanol Loadout route	
									2.66E-02	**3.35E-03**						

Appendix E. General Public Preclusion Plan – Boundary Map



Appendix F. Fugitive Emissions Control Plan and Best Management Practices Odor Plan

POET Biorefining Lake Crystal, LLC Fugitive Emissions Plan

POET Biorefining Lake Crystal, LLC will employ application of an approved dust suppressant on its roads to control fugitive road dust emissions. Initially, but subject to change at POET Biorefining Lake Crystal, LLC's discretion to another approved dust suppressant, they will employ the services of professionals to mitigate fugitive road dust. They will apply a liquid solution of calcium lignosulfonate or similar dust suppressant to all roadways at the facility. POET Biorefining Lake Crystal, LLC will comply with the monitoring and recordkeeping provisions set forth below.

Application Schedule

Scheduled	Not Scheduled
Annually; Application will cover facility roadways	As needed per periodic observations; Application may be spot specific (i.e., corners and turn-arounds) or entire facility.

Monitoring

Parameter	Set Point/Range	Frequency
Visible road dust from all Sections of facility roadway.	No visible road dust Weekly.	Personnel will inspect facility roadway surface for wear, frost boils, etc. and will observe truck traffic at each corner for signs of visible emissions.

Recordkeeping

Personnel will record roadway inspection observation data including but not limited to:

- Date and time of inspection, name of inspector, map or site plan showing locations and site lines of Visible Emissions observations and locations of road surface problem areas, corrective actions taken to eliminate visible emissions or problem surface conditions.
- Any deviation of monitoring frequency and range shall be reported in the semi-annual deviation reports.

Best Management Practices Odor Plan

1.0 Introduction

This document contains the odor management plan for the POET Biorefining – Lake Crystal (POET) facility. The following sections contain the details on odor prevention and control measures for the following potential odor sources:

- Wet cake production and storage;
- Fermentation and distillation systems;
- Distillers Grain Dryers; and
- Emissions from piping, valves, and flanges.

1.1 Wet Cake Production and Storage

POET has the ability to produce wet cake. The wet cake is stored on a concrete pad located at the north end of the dryers. The concrete pad has a shelter type roof and walled containment. A drain takes liquid from the wet cake back into the ethanol production process. Wet cake is trucked off-site by private carrier in covered trailers.

Wet cake can generate objectionable odors when bacterial degradation (spoilage) occurs. During warm weather, observable degradation does not usually appear for 3 to 4 days after the wet cake is produced. Degradation slows considerably at colder temperatures.

When wet cake is generated, the wet cake is checked daily for visual signs of degradation. For operational and economic reasons, wet cake is typically shipped off-site within 3 to 4 days.

In all cases, wet cake is shipped off-site within 72 hours after visual degradation is observed. Implementation of these procedures will effectively control odor from the wet cake storage area.

1.2 Fermentation and Distillation Systems

The fermentation and distillation systems produce exhaust gases that contain ethanol and other volatile organic compounds (VOCs). The exhaust from the fermentation and distillation systems is vented to a wet scrubber. The wet scrubber removes at least 95% of the VOCs. Under normal operating conditions, the exhaust from the wet scrubber is vented to the regenerative thermal oxidizer (RTO). The RTO further reduces the VOCs in the exhaust gas.

POET can operate the fermentation and distillation systems for up to 500 hours per year when the RTO is not in operation due to maintenance or breakdown.

Uncontrolled emissions of VOCs from the fermentation and distillation systems can be objectionable. The operation of the wet scrubber reduces VOC emission to a degree that odor is not considered objectionable. Further reduction of VOC in the RTO is not required to prevent objectionable odors.

The wet scrubber will be operated in accordance with the following:

1. The scrubber water flow rate will be maintained at the rate listed in the air permit, unless a new limit 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 limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval.
2. The pressure drop across the scrubber will be maintained at the range listed in the air permit, 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 limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval.

3. If the flow rate or pressure drop is outside of the acceptable range, POET will take corrective action as soon as possible to correct the condition.
4. The flow rate and pressure drop gauges will be calibrated, verified, or replaced annually;
5. POET will inspect the scrubber either quarterly or more or less frequently as required by the manufacturer recommendations.

Implementation of these procedures will effectively control odor from the fermentation and distillation systems.

1.3 Distillers Grain Dryers

Spent grain and syrup from the ethanol production process are conveyed to the distillers grain dryers. The dryers reduce the moisture content of the spent grain to produce dried distillers grain with soluble (DDGS). DDGS is a valuable co-product of the ethanol production process and is sold off-site as an animal feed.

During drying, exhaust gases are produced which contain water, VOCs, particulate matter (PM), and carbon monoxide (CO) along with the products of natural gas combustion. Uncontrolled emissions from the dryers can produce objectionable odors. Under normal operating conditions, the exhaust from the dryers is vented to the RTO which reduces the concentration of VOC by at least 98%. The concentration of CO and PM are also reduced by at least 90%.

The RTO will be operated in accordance with the following:

1. The RTO combustion chamber temperature will be maintained at the temperature listed in the air permit, unless a new limit 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 limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval.

2. The temperature gauges will be calibrated, verified, or replaced annually;

3. At least once per calendar quarter, POET will inspect the RTO external system components, including but not limited to the heat exchanger and electrical systems.

4. If the RTO combustion chamber temperature is outside of the acceptable range, POET will take corrective action as soon as possible to correct the condition.

5. POET will maintain the RTO in accordance with the Operating and Maintenance Plan.

Implementation of these procedures will effectively control odor from the dryers.

1.4 Emissions from Piping, Valves, and Flanges

Prior to fermentation, the piping, valves, pumps, valves and other equipment do not contain VOCs and are not potential sources of odors.

Following fermentation, VOCS are present in the facility piping and equipment. Leaks of VOCs from the facility piping and equipment are not normally considered to be significant sources of odor. Regardless, POET will implement a Leak Detection and Repair (LDAR) program for facility piping and equipment.

The LDAR program will follow the procedures detailed in 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.

Implementation of these procedures will effectively control odor from piping and facility equipment.

Appendix G. 40 CFR Part 60, Subpart A – General Provisions

§ 60.1 Applicability.

(a) Except as provided in subparts B and C, 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_X 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^3 - cubic meter

mg - milligram - 10^{-3} gram

mm - millimeter - 10^{-3} meter

Mg - megagram - 10^6 gram

mol - mole

N - newton

ng - nanogram - 10^{-9} gram

nm - nanometer - 10^{-9} meter

Pa - pascal

s - second

V - volt

W - watt

Ω - ohm

µg - microgram - 10^{-6} 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_2 - carbon dioxide

HCl - hydrochloric acid

Hg - mercury

H_2O - water

H_2S - hydrogen sulfide

H_2SO_4 - sulfuric acid

N_2 - nitrogen

NO - nitric oxide

NO_2 - nitrogen dioxide

NO_X - nitrogen oxides

O_2 - oxygen

SO_2 - sulfur dioxide

SO_3 - sulfur trioxide

SO_X - 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 list of EPA Regional Offices.

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) 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.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, 61 Forsyth St. SW., Suite 9T43, Atlanta, Georgia 30303-8960.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) 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.

Region IX (Arizona, California, Hawaii and Nevada; the territories of American Samoa and 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), Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101.

(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, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 1001 North Central Avenue, Suite 900, Phoenix, AZ 85004.

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

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

Note:

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 County Air Pollution Control District, 12200-B Airport Road, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 43301 Division Street, Suite 206, Lancaster, CA 93535.

Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109.

Butte County Air Quality Management District, 2525 Dominic Drive, Suite J, Chico, CA 95928.

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

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A-3, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 2850 Fairlane Court, Bldg. C, 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, 1007 Live Oak Blvd., Suite B-3, 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, Suite 6, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2801.

Lake County Air Quality Management District, 885 Lakeport Blvd., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 707 Nevada Street, Suite 1, 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, 619 North Main Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 2300 Myrtle Avenue, Eureka, CA 95501-3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, P.O. Box 2509, 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, 3091 County Center Drive, Suite 240, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Third Floor, 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 8069 (1750 Walnut Street), Red Bluff, CA 96080-0038.

Tuolumne County Air Pollution Control District, 22365 Airport, Columbia, CA 95310.

Ventura County Air Pollution Control District, 669 County Square Drive, 2nd Floor, Ventura, CA 93003-5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95616-4882.

Note:

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, 919 Ala Moana Blvd., Suite 203, Honolulu, HI 96814.

Note:

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 Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Washoe County Health District, Air Quality Management Division, 1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89520.

Note:

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
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

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
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	Ferroally Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces	X	X	X	X
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	

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
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 Clearners	X	X	X	
KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing Plants				
LLL	Onshore Natural Gas Processing Plants; SO_2 Emissions		X		
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, Caroll, Colombiana, 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, Oklahoma State Department of Health, Air Quality Service, P.O. Box 53551, Oklahoma City, OK 73152.

(i) Oklahoma City and County: Director, Oklahoma City-County Health Department, 921 Northeast 23rd Street, Oklahoma City, OK 73105.

(ii) Tulsa County: Tulsa City-County Health Department, 4616 East Fifteenth Street, Tulsa, OK 74112.

(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[1]	**Washington**							
	Ecology[2]	**BCAA[3]**	**NWAPA[4]**	**ORCAA[5]**	**PSCAA[6]**	**SCAPCA[7]**	**SWCAA[8]**	**YRCAA[9]**
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)								

Subpart[1]	Washington							
	Ecology[2]	BCAA[3]	NWAPA[4]	ORCAA[5]	PSCAA[6]	SCAPCA[7]	SWCAA[8]	YRCAA[9]
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
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

Subpart[1]	Washington							
	Ecology[2]	BCAA[3]	NWAPA[4]	ORCAA[5]	PSCAA[6]	SCAPCA[7]	SWCAA[8]	YRCAA[9]
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[10]	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
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[11]	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

Subpart[1]	Washington							
	Ecology[2]	BCAA[3]	NWAPA[4]	ORCAA[5]	PSCAA[6]	SCAPCA[7]	SWCAA[8]	YRCAA[9]
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
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_2 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

Subpart[1]	Washington							
	Ecology[2]	BCAA[3]	NWAPA[4]	ORCAA[5]	PSCAA[6]	SCAPCA[7]	SWCAA[8]	YRCAA[9]
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, 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001	X	X		X	X	X		X
DDDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)								

[1] 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.

[2] 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.

[3] 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.

[4] Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.

[5] 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.

[6] Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.

[7] 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.

[8] Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.

[9] 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.

[10] 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.

[11] 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 Resouces, 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
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

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
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
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

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
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
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)				

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
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_2 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
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 Commended After June 6, 2001	X	X	X	

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
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 Construction, Modification or Reconstruction Commenced After September 18, 2015		X	X	
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		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
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	
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	

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
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	
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	

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
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	
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_2 Emissions		X		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
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		
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 Commended 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		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units		X		
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				
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
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
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

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
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
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)				

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
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
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
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

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
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
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

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
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
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_2 Emissions	X			X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X			X

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
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	
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		

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
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
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

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
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
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

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
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
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO_2 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

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
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 Commended 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	
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

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	**Northern Sonoma County APCD**	**Placer County APCD**	**Sacramento Metropolitan AQMD**
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
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

		Air pollution control agency			
	Subpart	**Northern Sierra AQMD**	**Northern Sonoma County APCD**	**Placer County APCD**	**Sacramento Metropolitan AQMD**
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
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

		Air pollution control agency			
	Subpart	**Northern Sierra AQMD**	**Northern Sonoma County APCD**	**Placer County APCD**	**Sacramento Metropolitan 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 Chemicals Manufacturing Industry				X
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: SO_2 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

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	**Northern Sonoma County APCD**	**Placer County APCD**	**Sacramento Metropolitan 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
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 After June 20, 1996	X			X
F	Portland Cement Plants	X	X	X	

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
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	
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	

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
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	
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

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
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_2 Emissions	X	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	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

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
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 Commended 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				
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	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
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				
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	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
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	
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	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
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	
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_2 Emissions			X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations			X	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
OOO	Nonmetallic Mineral Processing Plants			X	
PPP	Wool Fiberglass Insulation Manufacturing Plants			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	
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 Commended 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		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano 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	

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
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	
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	

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
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	
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	

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
JJJ	Petroleum Dry Cleaners		X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	
LLL	Onshore Natural Gas Processing: SO_2 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	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

	Subpart	Hawaii
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	
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

	Subpart	Hawaii
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
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)	

	Subpart	Hawaii
FFF	Flexible Vinyl and Urethane Coating and Printing	
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_2 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	
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 Commenced After May 18, 1978, and Prior to July 23, 1984	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	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
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	
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

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
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	
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_2 Emissions	X	X	
MMM	(Reserved)			

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
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 Commended 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	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
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 all part 60 standards promulgated by EPA, except subpart AAA - Standards of Performance for New Residential Wood Heaters, as amended in the Federal Register through July 1, 2013.

Delegation Status for Part 60 Standards - State of Louisiana

[Excluding Indian Country]

Subpart	Source category	LDEQ[1]
A	General Provisions	Yes
Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	Yes
D	Fossil Fueled Steam Generators (>250 MM BTU/hr)	Yes
Da	Electric Utility Steam Generating Units (>250 MM BTU/hr)	Yes
Db	Industrial-Commercial-Institutional Steam Generating Units (100 to 250 MM BTU/hr)	Yes

Subpart	Source category	LDEQ[1]
Dc	Industrial-Commercial-Institutional Small Steam Generating Units (10 to 100 MM BTU/hr)	Yes
E	Incinerators (>50 tons per day)	Yes
Ea	Municipal Waste Combustors	Yes
Eb	Large Municipal Waste Combustors	Yes
Ec	Hospital/Medical/Infectious Waste Incinerators	Yes
F	Portland Cement Plants	Yes
G	Nitric Acid Plants	Yes
Ga	Nitric Acid Plants (after October 14, 2011)	Yes
H	Sulfuric Acid Plants	Yes
I	Hot Mix Asphalt Facilities	Yes
J	Petroleum Refineries	Yes
Ja	Petroleum Refineries (After May 14, 2007)	Yes
K	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Ka	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Stg/Vessels) After 7/23/84	Yes
L	Secondary Lead Smelters Yes	Yes
M	Secondary Brass and Bronze Production Plants	Yes
N	Primary Emissions from Basic Oxygen Process Furnaces (Construction Commenced After June 11, 1973)	Yes
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities Construction is Commenced After January 20, 1983	Yes
O	Sewage Treatment Plants	Yes
P	Primary Copper Smelters	Yes
Q	Primary Zinc Smelters	Yes
R	Primary Lead Smelters	Yes
S	Primary Aluminum Reduction Plants	Yes
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Plants	Yes
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	Yes
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	Yes
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	Yes
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	Yes

Subpart	Source category	LDEQ[1]
Y	Coal Preparation Plants	Yes
Z	Ferroalloy Production Facilities	Yes
AA	Steel Plants: Electric Arc Furnaces After 10/21/74 & On or Before 8/17/83	Yes
AAa	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels After 8/07/83	Yes
BB	Kraft Pulp Mills	Yes
CC	Glass Manufacturing Plants	Yes
DD	Grain Elevators	Yes
EE	Surface Coating of Metal Furniture	Yes
GG	Stationary Gas Turbines	Yes
HH	Lime Manufacturing Plants	Yes
KK	Lead-Acid Battery Manufacturing Plants	Yes
LL	Metallic Mineral Processing Plants	Yes
MM	Automobile & Light Duty Truck Surface Coating Operations	Yes
NN	Phosphate Manufacturing Plants	Yes
PP	Ammonium Sulfate Manufacture	Yes
QQ	Graphic Arts Industry: Publication Rotogravure Printing	Yes
RR	Pressure Sensitive Tape and Label Surface Coating Operations	Yes
SS	Industrial Surface Coating: Large Appliances	Yes
TT	Metal Coil Surface Coating	Yes
UU	Asphalt Processing and Asphalt Roofing Manufacture	Yes
VV	VOC Equipment Leaks in the SOCMI Industry	Yes
VVa	VOC Equipment Leaks in the SOCMI Industry (After November 7, 2006)	Yes
XX	Bulk Gasoline Terminals	Yes
AAA	New Residential Wood Heaters	No
BBB	Rubber Tire Manufacturing Industry	Yes
DDD	Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry	Yes
FFF	Flexible Vinyl and Urethane Coating and Printing	Yes
GGG	VOC Equipment Leaks in Petroleum Refineries	Yes
HHH	Synthetic Fiber Production	Yes
III	VOC Emissions from the SOCMI Air Oxidation Unit Processes	Yes

Subpart	Source category	LDEQ[1]
JJJ	Petroleum Dry Cleaners	Yes
KKK	VOC Equipment Leaks From Onshore Natural Gas Processing Plants	Yes
LLL	Onshore Natural Gas Processing: SO_2 Emissions	Yes
NNN	VOC Emissions from SOCMI Distillation Operations	Yes
OOO	Nonmetallic Mineral Processing Plants	Yes
PPP	Wool Fiberglass Insulation Manufacturing Plants	Yes
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	Yes
RRR	VOC Emissions from SOCMI Reactor Processes	Yes
SSS	Magnetic Tape Coating Operations	Yes
TTT	Industrial Surface Coating: Plastic Parts for Business Machines	Yes
UUU	Calciners and Dryers in Mineral Industries	Yes
VVV	Polymeric Coating of Supporting Substrates Facilities	Yes
WWW	Municipal Solid Waste Landfills	Yes
AAAA	Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or Modification/Reconstruction is Commenced After 6/06/2001)	Yes
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)	Yes
DDDD	Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)	Yes
EEEE	Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)	Yes
IIII	Stationary Compression Ignition Internal Combustion Engines	Yes
JJJJ	Stationary Spark Ignition Internal Combustion Engines	Yes
KKKK	Stationary Combustion Turbines (Construction Commenced After 02/18/2005)	Yes
LLLL	New Sewage Sludge Incineration Units	Yes
MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	Yes
OOOO	Crude Oil and Natural Gas Production, Transmission and Distribution	Yes

[1] The Louisiana Department of Environmental Quality (LDEQ) has been delegated all Part 60 standards promulgated by EPA, except subpart AAA - Standards of Performance for New Residential Wood Heaters - as amended in the Federal Register through July 1, 2013.

(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.*

§ 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_2/NO_X/TRS/H_2S/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[1]

Emission data summary[1]		**CMS performance summary[1]**	
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]	%[2]	3. [Total CMS Downtime] × (100) [Total source operating time]	%[2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] 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 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,* 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.* 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 determing 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 continous 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_2 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

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.*

§ 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[1]	***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
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper

Priority Number[1]	***Source Category***
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
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

Priority Number[1]	***Source Category***
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate[2]
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)
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)

Priority Number[1]	***Source Category***
59.	Detergent (Deleted)

Other Source Categories

Lead acid battery manufacture[3]

Organic solvent cleaning[3]

Industrial surface coating: metal furniture[3]

Stationary gas turbines[4]

Municipal solid waste landfills[4]

[1] Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

[2] Formerly titled "Sintering: Clay and Fly Ash".

[3] Minor source category, but included on list since an NSPS is being developed for that source category.

[4] Not prioritized, since an NSPS for this major source category has already been promulgated.

§ 60.17 Incorporations by reference.

(a) 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 EPA must publish notice of change in the Federal Register and the material must be available to the public. All approved material is available for inspection at the EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW., Washington, DC, telephone number 202-566-1744, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fedreg.legal@nara.gov,* or go to *www.archives.gov/federal-register/cfr/ibr-locations.html.*

(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. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(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) The following material is available for purchase from the American National Standards Institute (ANSI), 25 W. 43rd Street, 4th Floor, New York, NY 10036, Telephone (212) 642-4980, and is also available at the following Web site: *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).

(2) [Reserved]

(e) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(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) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, and is also available at the following Web site: *http://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), tables 1 and 3 to subpart EEEE, tables 2 and 4 to subpart FFFF, table 2 to subpart JJJJ, §§ 60.285a(f), 60.4415(a), 60.2145(s) and (t), 60.2710(s) and (t), 60.2730(q), 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), 60.5407a(g), 60.5413(b), 60.5413a(b), and 60.5413a(d).

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

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

(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) The following material is available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959, (800) 262-1373, *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).

(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 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.

(29) 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.

(30) 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).

(31) 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).

(32) 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.

(33) 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.

(34) 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.

(35) 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.

(36) 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.

(37) ASTM D388-99 (Reapproved 2004) 1 Standard Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, 60.251, and 60.5580.

(38) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

(39) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

(40) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

(41) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

(42) ASTM D396-98, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), 60.111a(b), and 60.5580.

(43) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).

(44) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).

(45) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).

(46) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.41b 60.41c, and 60.5580.

(47) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).

(48) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).

(49) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.4415(a).

(50) 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).

(51) 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).

(52) 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.

(53) 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.

(54) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(55) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(56) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

(57) ASTM D1266-98 (Reapproved 2003)$^{\varepsilon,1}$ Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for § 60.4415(a).

(58) 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.

(59) 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.

(60) 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.

(61) 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.

(62) 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.

(63) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for § 60.4415(a).

(64) 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.

(65) 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.

(66) 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).

(67) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.

(68) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.

(69) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.

(70) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.

(71) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).

(72) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).

(73) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).

(74) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).

(75) 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).

(76) 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).

(77) 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).

(78) 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).

(79) 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.

(80) 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.

(81) 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.

(82) 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.

(83) 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.

(84) 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.

(85) 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.

(86) 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.

(87) 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.

(88) 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.

(89) 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.

(90) 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.

(91) 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.

(92) 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.

(93) 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.

(94) 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.

(95) 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.

(96) 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).

(97) 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).

(98) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).

(99) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).

(100) 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).

(101) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).

(102) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).

(103) 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).

(104) 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).

(105) 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).

(106) 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).

(107) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).

(108) ASTM D2879-83Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§ 60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).

(109) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§ 60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).

(110) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§ 60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).

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

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

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

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

(115) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl 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.

(116) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl 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.

(117) ASTM D2986-95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl 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.

(118) 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.

(119) 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.

(120) 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.

(121) 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.

(122) 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.

(123) 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.

(124) 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).

(125) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).

(126) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).

(127) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).

(128) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).

(129) ASTM D3246-05, Standard Test Method for Sulfur in Petrolum Gas by Oxidative Microcoulometry, IBR approved for § 60.4415(a)(1).

(130) 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.

(131) 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.

(132) 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.

(133) 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.

(134) 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.

(135) 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.

(136) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for § 60.564(j).

(137) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for § 60.564(j).

(138) 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), and 60.5413a(d).

(139) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§ 60.41b, 60.41c, and 60.5580.

(140) 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.

(141) 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.

(142) 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.

(143) 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.

(144) 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.

(145) 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.

(146) 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.

(147) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).

(148) 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).

(149) 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).

(150) 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).

(151) 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.

(152) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).

(153) 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.

(154) 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.

(155) 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.

(156) 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).

(157) 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).

(158) 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.

(159) 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.

(160) 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.

(161) 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.

(162) 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).

(163) 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).

(164) 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).

(165) 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).

(166) 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).

(167) 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).

(168) 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), and 60.5413a(d).

(169) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for § 60.4415(a).

(170) 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.

(171) 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).

(172) 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).

(173) 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.

(174) 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).

(175) 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).

(176) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for § 60.335(b).

(177) 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.

(178) 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.

(179) ASTM D6216-12, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved October 1, 2012; IBR approved for appendix B to part 60.

(180) 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).

(181) 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.

(182) 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).

(183) 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).

(184) 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.

(185) 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).

(186) 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 JJJJ, §§ 60.5413(b) and (d), and 60.5413a(b).

(187) 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).

(188) 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).

(189) 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).

(190) 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, and 60.5580.

(191) 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.

(192) 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 §§ 60.2165(j) and 60.2730(j), tables 5, 6 and 8 to subpart CCCC, and tables 2, 6, 7, and 9 to subpart DDDD, §§ 60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.

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

(194) 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).

(195) 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, and 60.5580.

(196) 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 § 60.374a(d).

(197) 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).

(198) 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).

(199) 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).

(200) 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) .

(201) 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).

(202) 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).

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

(204) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(205) 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), and 60.5406a(b)(3).

(206) 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.

(207) 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.

(208) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for § 60.73a(c).

(209) 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.

(210) 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.

(211) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for § 60.534.

(212) 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.

(213) 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.

(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) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, *http://www.epa.gov.*

(1) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, *https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF;* IBR approved for §§ 60.373a(b); 60.2145(r); 60.2710(r); 60.4905(b); 60.5225(b).

(2) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for §§ 60.5413(d) and 60.5413a(d).

(3) SW-846-6010D, Inductively Coupled Plasma-Optical Emission Spectrometry, Revision 5, July 2018, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for appendix A-5 to part 60: Method 12.

(4) SW-846-6020B, Inductively Coupled Plasma-Mass Spectrometry, Revision 2, July 2014, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for appendix A-5 to part 60: Method 12.

(k) GPA Midstream Association (formerly known as Gas Processors Association), Sixty Sixty American Plaza, Suite 700, Tulsa, OK 74135.

Note 1 to paragraph (k):

Material in this paragraph that is no longer available from GPA may be available through the reseller HIS Markit, 15 Inverness Way East, P.O. Box 1154, Englewood, CO 80150-1154, *https://global.ihs.com/*. For material that is out-of-print, contact EPA's Air and Radiation Docket and Information Center, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460 or *a-and-rdocket@epa.gov.*

(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).

(l) International Organization for Standardization (ISO) available through IHS Inc., 15 Inverness Way East, Englewood, CO 80112.

(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 10715:1997(E), Natural gas - Sampling guidelines, (First Edition, June 1, 1997), IBR approved for § 60.4415(a)

(m) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, *http://www.iso.org/iso/home.htm.*

(1) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for § 60.5580.

(2) 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).

(n) This material is available for purchase from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(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]

(o) 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.*

(2) [Reserved]

(p) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092, Telephone (800) 332-8686, and is also available at the following Web site: *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]

(q) 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]

(r) 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]

(s) West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.

(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]

(t) This material is available for purchase from the Canadian Standards Association (CSA), 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6, Telephone: 800-463-6727.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for § 60.534 and § 60.5476. (The standard is also available at *http://shop.csa.ca/en/canada/fuel-burning-equipment/b4151-10/invt/27013322010*)

(2) [Reserved]

(u) This European National (EN) standards material is available for purchase at European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium, Telephone: + 32 2 550 08 11.

(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. (The standard is also available at *http://www.en-standard.eu/csn-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/?gclid=CJXI2P__97MMCFdccgQodan8ATA*)

(2) [Reserved]

§ 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:

$V_{max} = (X_{H2} - K_1) * K_2$

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_{H2} = 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;

$$K = \text{Constant}, 1.740 \times 10^{-7} \left(\frac{1}{ppm}\right) \left(\frac{g\ mole}{scm}\right) \left(\frac{MJ}{kcal}\right)$$

where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ 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[a]	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

[a] 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.

Appendix H. 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

§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 (m3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m3 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 m3 but less than 151 m3 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 m3 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 m3 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 m3 but less than 151 m3 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 m3 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 m3 but less than 151 m3 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 m3 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 m3 but less than 151 m3 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 m3 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 cm2 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 cm2 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). This 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.

(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.

(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). This 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:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(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.

(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.

(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), (2), (3), (4), (5), and (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.

§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 m3 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 m3 but less than 151 m3 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 m3 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 m3 but less than 151 m3 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 vapor pressure values for each volume range.

(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).

Appendix I. 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

§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, 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 60.482-11a.

(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 60.482-11a.

(4) Any affected facility that produces beverage alcohol is exempt from §§60.482-1a through 60.482-11a.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§60.482-1a through 60.482-11a.

(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) *Stay of standards.*

(1) Owners or operators that start a new, reconstructed, or modified affected source prior to November 16, 2007 are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

(i) The definition of "capital expenditure" in §60.481a of this subpart. While the definition of "capital expenditure" is stayed, owners or operators should use the definition found in §60.481 of subpart VV of this part.

(ii) [Reserved]

(2) Owners or operators are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

(i) The definition of "process unit" in §60.481a of this subpart. While the definition of "process unit" is stayed, owners or operators should use the following definition:

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

(ii) The method of allocation of shared storage vessels in §60.482-1a(g) of this subpart.

(iii) The standards for connectors in gas/vapor service and in light liquid service in §60.482-11a of this subpart.

§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 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) 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:

(1) 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:

$$A = Y \times (B \div 100);$$

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 2006 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable Value for B

Subpart applicable to facility	Value of B to be used in equation
VVa	12.5
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 the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in §60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels (except as specified in §60.482-1a(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

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.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in §60.481a, the definitions of “capital expenditure” and “process unit” were stayed until further notice.

§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 60.482-11a 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**
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.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to this subpart, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to this subpart of this part, the storage vessel is assigned to any process unit subject to subpart VV of this part. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in §60.482-1a, paragraph (g) was stayed until further notice.

§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.

§60.482-11a Standards: Connectors in gas/vapor service and in light liquid service.

(a) The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) Except as allowed in §60.482-1a(c), §60.482-10a, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in §60.485a(b) and, as applicable, §60.485a(c).

(2) If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

(3) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent of leaking connectors within the total monitored connectors.

(C) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:

$$\%C_L = C_L / C_t * 100$$

Where:

$\%C_L$ = Percent of leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (iii) of this section.

C_L = Number of connectors measured at 500 ppm or greater, by the method specified in §60.485a(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected pursuant to paragraphs (a) and (b) of this section, 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. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in §60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section if:

(1) The owner or operator of the connector demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (a) and (b) of this section; and

(2) The owner or operator of the connector has a written plan that requires monitoring of the connector 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 (d) of this section if a leak is detected.

(f) *Inaccessible, ceramic, or ceramic-lined connectors.*

(1) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (f)(1)(i) through (vi) of this section, as applicable:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

(g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph (f) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, §60.482-11a was stayed until further notice.

§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 60.482-11a, 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 of 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)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent

from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. 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 since the last calibration 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) 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_2O 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_2O 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 m4/(MJ-sec) (metric units) = 0.087 ft4/(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, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-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 of this part or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) 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."

(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.

§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, 60.482-11a, 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, 60.482-11a, 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) The identification on a connector may be removed after it has been monitored as specified in §60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring.

(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, 60.482-11a, 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 nonrepairable, 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 60.482-11a 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) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v).

(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), all pumps subject to the requirements of §60.482-2a(g), and all connectors subject to the requirements of §60.482-11a(e) 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.

§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.

(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).

(5) Number of connectors subject to the requirements of §60.482-11a.

(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),

(vii) Number of connectors for which leaks were detected as described in §60.482-11a(b)

(viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and

(ix)-(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.

§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 J. 40 CFR Part 63, Subpart A—General Provisions

§ 63.1 Applicability.

(a) *General.*

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

(10) 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.

(11) 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, test plan, 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 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 agreed to by the permitting authority, is acceptable.

(12) 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 § 63.9(i).

(b) *Initial applicability determination for this part.*

(1) The provisions of this part apply to the owner or operator of any stationary source that -

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether -

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(6) A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants, as defined in this subpart, to below the major source thresholds established in § 63.2, subject to the provisions in paragraphs (c)(6)(i) and (ii) of this section.

(i) A major source reclassifying to area source status is subject to the applicability of standards, compliance dates and notification requirements specified in (c)(6)(i)(A) of this section. An area source that previously was a major source and becomes a major source again is subject to the applicability of standards, compliance dates, and notification requirements specified in (c)(6)(i)(B) of this section:

(A) A major source reclassifying to area source status under this part remains subject to any applicable major source requirements established under this part until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements established under this part immediately, provided the compliance date for the area source requirements has passed. The owner or operator of a major source that becomes an area source subject to newly applicable area source requirements under this part must comply with the initial notification requirements pursuant to § 63.9(b). The owner or operator of a major source that becomes an area source must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(B) An area source that previously was a major source under this part and that becomes a major source again is subject to the applicable major source requirements established under this part immediately upon becoming a major source again, provided the compliance date for the major source requirements has passed, notwithstanding any provision within the applicable subparts. The owner or operator of an area source that becomes a major source again must comply with the initial notification pursuant to § 63.9(b). The owner or operator must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(ii) Becoming an area source does not absolve a source subject to an enforcement action or investigation for major source violations or infractions from the consequences of any actions occurring when the source was major. Becoming a major source does not absolve a source subject to an enforcement action or investigation for area source violations or infractions from the consequences of any actions occurring when the source was an area source.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements

of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 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.,* as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the “affected source,” as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term “affected source,” as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of “affected source,” and the procedures for adopting an alternative definition of “affected source,” shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

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).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction 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 reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not “federally enforceable” by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise “federally enforceable”;

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of § 63.7, 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.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

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.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance - the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques - the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency - the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time - the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of “new affected source,” and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term “new affected source,” which will be the same as the “affected source” unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, 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. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

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.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

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).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

(i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and

(ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source 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 new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard

established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at *www.epa.gov/PerformanceTrack*) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

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

Startup means the setting in operation of an affected source or portion of an affected source 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.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

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.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 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

l = liter

m = meter

m^3 = cubic meter

mg = milligram = 10^{-3} gram

ml = milliliter = 10^{-3} liter

mm = millimeter = 10^{-3} meter

Mg = megagram = 10^6 gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10^{-9} gram

nm = nanometer = 10^{-9} meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

µg = microgram = 10^{-6} gram

µl = microliter = 10^{-6} liter

(b) *Other units of measure:*

Btu = British thermal unit

°C = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

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

ft^2 = square feet

ft^3 = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H_2 O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd^2 = square yards

yr = year

(c) *Miscellaneous:*

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

§ 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to -

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient

information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with -

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§ 63.6 Compliance with standards and maintenance requirements.

(a) *Applicability.*

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless -

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) *Compliance dates for new and reconstructed sources.*

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are “more stringent” must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially

equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d)

(6) [Reserved]

(7) When an area source increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source, the portion of the facility that meets the definition of a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) *Compliance dates for existing sources.*

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part, except as provided in § 63.1(c)(6)(i). Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source and meets the definition of an existing source in the applicable major source standard shall be subject to relevant standards for existing sources. Except as provided in paragraph § 63.1(c)(6)(i)(B), such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to -

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of

the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of

any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in § 70.2 and § 71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards* -

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards* -

(1) *Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in

this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance

test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the

Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source 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 emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions* -

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if

he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*1*) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(*2*) The date by which final compliance is to be achieved.

(*3*) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(*4*) The date by which final compliance is to be achieved;

(C)-(D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30

calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(4) 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:

(i) 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 specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, 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.

(ii) 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.

(iii) 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.

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

(b) *Notification of performance test.*

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.*

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) 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.

(A) 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 of this chapter; 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 this part. 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,* 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 then 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.

(B) 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:

(*1*) Preparing the sample;

(*2*) Confirming the true concentration of the sample;

(*3*) 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;

(*4*) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;

(*5*) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(*6*) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(*7*) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. 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.

(*8*) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.

(*9*) 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.

(C) 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:

(*1*) Checking audit samples to confirm their true value as reported by the AASP.

(*2*) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

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

(D) 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.* 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 (c)(2)(iii)(B) through (C) 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.*

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission

of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. 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; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. 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 relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that -

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method* -

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.*

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is “completed” when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) Contents of a performance test, CMS performance evaluation, or CMS quality assurance test report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard, test method, CMS performance specification, or quality assurance requirement for a CMS, or as otherwise approved by the Administrator in writing, the report shall include the elements identified in paragraphs (g)(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 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, CEMS, PEMS, or COMS performance specification, or on-going quality assurance requirement for a CEMS, PEMS, or COMS requires you record or report, the following shall be included in your report: 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 including his/her email address.

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.*

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.*

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or

operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(i), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) *Conduct of monitoring.*

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is -

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) *Operation and maintenance of continuous monitoring systems.*

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).

(2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of

operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS 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.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7) (i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for

a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems* -

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.*

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation containing the information specified in § 63.7(g)(2)(i) through (vi) simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation, unless otherwise specified in a relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the

COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) *Use of an alternative monitoring method* -

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

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

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the

monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 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 CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 8.4 of Performance Specification 2.

(g) *Reduction of monitoring data.*

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§ 63.9 Notification requirements.

(a) *Applicability and general information.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to

the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source subsequently becomes a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section. Area sources previously subject to major source requirements that become major sources again are also subject to the notification requirements of this paragraph and must submit the notification according to the requirements of paragraph (k) of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in

writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(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.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator within 15 calendar days after the change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this paragraph. The owner or operator may use the application for reclassification with the regulatory authority (*e.g.,* permit application) to fulfill the requirements of this paragraph. A source which reclassified after January 25, 2018, and before January 19, 2021, and has not yet provided the notification of a change in information is required to provide such notification no later than February 2, 2021, according to the requirements of paragraph (k) of this section. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of paragraph (k) of this section. A notification of reclassification must contain the following information:

(1) The name and address of the owner or operator;

(2) The address (*i.e.,* physical location) of the affected source;

(3) An identification of the standard being reclassified from and to (if applicable); and

(4) Date of effectiveness of the reclassification.

(k) *Electronic submission of notifications or reports.* If you are required to submit notifications or reports following the procedure specified in this paragraph (k), you 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 notification or report must be submitted by the deadline specified. 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 confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI, submit a complete notification or report, including information claimed to be CBI, to the EPA. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (k). All CBI claims must be asserted at the time of submission. Furthermore, under section 114(c) of the Act emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(1) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you 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, you must meet the requirements outlined in paragraphs (k)(1)(i) through (vii) of this section.

(i) You must have been or will be precluded from accessing CEDRI and submitting a required notification or report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the notification or report is due.

(iii) The outage may be planned or unplanned.

(iv) 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.

(v) You must provide to the Administrator a written description identifying:

(A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(B) A rationale for attributing the delay in submitting beyond the regulatory deadline to EPA system outage;

(C) Measures taken or to be taken to minimize the delay in submitting; and

(D) The date by which you propose to submit, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(vi) 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.

(vii) In any circumstance, the notification or report must be submitted electronically as soon as possible after the outage is resolved.

(2) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you 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 (k)(2)(i) through (v) of this section.

(i) 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 notification or 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).

(ii) 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 submitting through CEDRI.

(iii) You must provide to the Administrator:

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) Measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to submit the notification or report, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(iv) The decision to accept the claim of force majeure and allow an extension to the submittal deadline is solely within the discretion of the Administrator.

(v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

§ 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source 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 source 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. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, 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 permitting authority) a common schedule on which periodic reports required by each relevant (i.e., 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 relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *General recordkeeping requirements.*

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;

(ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)); or

(B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a “checklist,” or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) 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 (b)(2)(vii) 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.

(B) 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 (b)(2)(vii) 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.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) If an owner or operator determines that his or her existing or new stationary source is in the source category regulated by a standard established pursuant to section 112 of the Act, but that source is not subject to the relevant standard (or other requirement established under this part) because of enforceable limitations on the source's potential to emit, or the source otherwise qualifies for an exclusion, the owner or operator must keep a record of the applicability determination. The applicability determination must be kept on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part), whichever comes first if the determination is made prior to January 19, 2021. The applicability determination must be kept until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part) if the determination was made on or after January 19, 2021. The record of the applicability determination must be signed by the person making the determination and include an emissions analysis (or other information) that demonstrates the owner or operator's conclusion that the source is unaffected (*e.g.,* because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make an applicability finding for the source with regard to the relevant standard or other requirement. If applicable, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112 of the Act, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination

under this paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)-(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in § 63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring

system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with § 63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in § 63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems* -

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) *Reporting results of continuous monitoring system performance evaluations.*

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the

COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when -

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of § 63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (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:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

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

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard 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 5-year 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.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant 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)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §§ 63.8(c)(7) and 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled “Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance” and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time

during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances 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 shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances 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, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under §§ 63.6(i) and 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device and work practice requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) 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.*

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares 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. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. 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.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(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:

$V_{max} = (X_{H2} - K_1) * K_2$

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_{H2} = 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 § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 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 at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. 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 = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{\text{ppmv}} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

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 § 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, 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 method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

V_{max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$V_{max} = 8.71 + 0.708(H_T)$

Where:

V_{max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) 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, sppendix 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 (c), (d), and (e) of this section continue to apply. 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 (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 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.

(d) 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 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) 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 (e)(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 subparts 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 (d)(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.

(e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.

(1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(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 (e)(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 (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(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 (e)(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 (e)(2)(i)(A) and (e)(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 (e)(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 (e)(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 (e)(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 calculated in paragraph (e)(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 (e)(2)(ii) through (e)(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 § 63.177 or § 63.178, whichever is applicable.

(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.* Keep the records described in paragraphs (e)(4)(i) through (e)(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 (e)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(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 subparts.

(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.*

§ 63.12 State authority and delegations.

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

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate state agency of any state to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain federal or state reporting requirement. Any information required to be submitted electronically by this part via the EPA's CEDRI may, at the discretion of the delegated authority, satisfy the requirements of this paragraph. The Administrator may permit all or some of the information to be submitted to the appropriate state agency only, instead of to the EPA and the state agency with the exception of federal electronic reporting requirements under this part. Sources may not be exempted from federal electronic reporting requirements.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional offices. If a request, report, application, submittal, or other communication is required by this part to be submitted electronically via the EPA's CEDRI then such submission satisfies the requirements of this paragraph (a).

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) 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.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) 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.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and 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), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are 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, a document must be published in the Federal Register and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html. In addition, these materials are available from the following sources:

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742–2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(c) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §§ 63.111, 63.1402, 63.2406 and 63.7944.

Note 1 to paragraph (c)(1):

API Publication 2517 available through reseller HIS Markit at https://global.ihs.com/

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (API MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§ 63.1251 and 63.12005.

(d) American Public Health Association, 1015 18th Street NW, Washington, DC 20036; phone (844) 232–3707; email: standardmethods@subscritpionoffice.com; website: www.standardmethods.org.

(1) Standard Method 5210, Biochemical Oxygen Demand (BOD), revised December 10, 2019; IBR approved for § 63.457(c)

(2) [Reserved]

(e) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air-Conditioning Engineers Method 52.1, *Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter* June 4, 1992; IBR approved for § 63.11516(d).

(2) ANSI/ASHRAE Standard 52.2–2017, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size,* copyright 2017; IBR approved for § 63.11173(e).

(f) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990, Telephone (800) 843–2763, http://www.asme.org; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413–5184, http://global.ihs.com.

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§ 63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.997(e), 63.1282(d) and (g), and 63.1625(b), table 5 to subpart EEEE, §§ 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), and 63.5160(d), table 4 to subpart UUUU, table 3 to subpart YYYY, §§ 63.7822(b), 63.7824(e), 63.7825(b), 63.8000(d), 63.9307(c), 63.9323(a), 63.9621(b) and (c), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, and table 4 to

subpart AAAAA, table 5 to subpart DDDDD, table 4 to subpart JJJJJ, table 4 to subpart KKKKK, table 4 to subpart SSSSS, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJJ.

(2) [Reserved]

(g) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

(i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(f), § 63.626(f).

(ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f).

(iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f).

(iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f).

(v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(2) [Reserved]

(h) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201–3301, Telephone (703) 522–3032, Fax (703) 522–5468.

(1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(i) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959, Telephone (610) 832–9585, http://www.astm.org; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106–1346, Telephone (734) 761–4700, http://www.proquest.com.

(1) ASTM D95–05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(2) ASTM D240–09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.

(3) ASTM Method D388–05, Standard Classification of Coals by Rank, approved September 15, 2005, IBR approved for §§ 63.7575, 63.10042, and 63.11237.

(4) ASTM Method D396–10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IBR approved for § 63.10042.

(5) ASTM D396–10, Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for §§ 63.7575 and 63.11237.

(6) ASTM D523–89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(7) ASTM D975–11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for § 63.7575.

(8) ASTM D1193–77, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(9) ASTM D1193–91, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(10) ASTM D1331–89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(11) ASTM D1475–90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for appendix A to subpart II.

(12) ASTM D1475–13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IBR approved for §§ 63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).

(13) ASTM Method D1835–05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IBR approved for §§ 63.7575 and 63.11237.

(14) ASTM D1945–03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IBR approved for §§ 63.670(j), 63.772(h), and 63.1282(g).

(15) ASTM D1945–14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IBR approved for § 63.670(j).

(16) ASTM D1946–77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b).

(17) ASTM D1946–90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, 1994, IBR approved for §§ 63.11(b), 63.987(b), and 63.1412.

(18) ASTM D1963–85 (Reapproved 1996), Standard Test Method for Specific Gravity of Drying Oils, Varnishes, Resins, and Related Materials at 25/25 °C, approved November 29, 1985, IBR approved for § 63.3360(c).

(19) ASTM D2013/D2013M–09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(20) ASTM D2099–00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.

(21) ASTM D2111–10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures, approved June 1, 2015, IBR approved for §§ 63.3360(c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), and 63.4741(a).

(22) ASTM D2216–05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IBR approved for the definition of "Free organic liquids" in § 63.10692.

(23) ASTM D2234/D2234M–10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(24) ASTM D2369–93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.

(25) ASTM D2369–95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.

(26) ASTM D2369–10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IBR approved for §§ 63.3151(a), 63.3360(c), 63.3961(j), 63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4541(a), and 63.4561(j), appendix A to subpart PPPP, and §§ 63.4741(a), 63.4941(a) and (b), 63.4961(j), and 63.8055(b).

(27) ASTM D2382–76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).

(28) ASTM D2382–88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).

(29) ASTM D2697–86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.3521(b), and 63.5160(c).

(30) ASTM D2697–03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), 63.4941(b), and 63.8055(b).

(31) ASTM D2879–83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, Approved November 28, 1983, IBR approved for §§ 63.111, 63.1402, 63.2406, 63.7944, and 63.12005.

(32) ASTM D2879–96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IBR approved for §§ 63.111, and 63.12005.

(33) ASTM D2908–74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for § 63.1329(c).

(34) ASTM D2908–91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).

(35) ASTM D2908–91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).

(36) ASTM D2908–91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for § 63.1329(c).

(37) ASTM D2908–91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for § 63.1329(c).

(38) ASTM D2986–95A, "Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test," approved September 10, 1995, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.

(39) ASTM D3173–03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(40) ASTM D3257–93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(41) ASTM D3370–76, Standard Practices for Sampling Water, Approved August 27, 1976, IBR approved for § 63.1329(c).

(42) ASTM D3370–95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for § 63.1329(c).

(43) ASTM D3370–07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for § 63.1329(c).

(44) ASTM D3370–08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for § 63.1329(c).

(45) ASTM D3370–10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for § 63.1329(c).

(46) 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 §§ 63.772(h) and 63.1282(g).

(47) ASTM D3695–88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e).

(48) ASTM D3792–91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A to subpart II.

(49) ASTM D3912–80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(50) ASTM D3960–98, Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings, approved November 10, 1998, IBR approved for §§ 63.3360(c) and 63.8055(b).

(51) ASTM D4006–11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(52) ASTM D4017–81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.

(53) ASTM D4017–90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.

(54) ASTM D4017–96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.

(55) ASTM D4057–06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(56) ASTM D4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(57) ASTM D4084–07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IBR approved for table 6 to subpart DDDDD.

(58) ASTM D4177–95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(59) ASTM D4208–02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.

(60) ASTM D4239–14e1, "Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion," approved March 1, 2014, IBR approved for § 63.849(f).

(61) ASTM D4256–89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(62) ASTM D4256–89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(63) ASTM D4282–15, Standard Test Method for Determination of Free Cyanide in Water and Wastewater by Microdiffusion, Approved July 15, 2015, IBR approved for § 63.1103(g).

(64) ASTM D4606–03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IBR approved for table 6 to subpart DDDDD.

(65) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b).

(66) ASTM D4840–99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IBR approved for appendix A to part 63.

(67) 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 §§ 63.772(h) and 63.1282(g).

(68) ASTM D5066–91 (Reapproved 2017), 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 § 63.3161(g).

(69) ASTM D5087–02, 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), IBR approved for § 63.3165(e) and appendix A to subpart IIII.

(70) ASTM D5192–09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IBR approved for table 6 to subpart DDDDD.

(71) ASTM D5198–09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(72) ASTM D5228–92, Standard Test Method for Determination of Butane Working Capacity of Activated Carbon, (Reapproved 2005), IBR approved for § 63.11092(b).

(73) ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for appendix A to subpart MMMM.

(74) ASTM D5790–95 (Reapproved 2012), Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, Approved June 15, 2012, IBR approved for § 63.2485(h) and Table 4 to subpart UUUU.

(75) ASTM D5864–11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IBR approved for table 6 to subpart DDDDD.

(76) ASTM D5865–10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(77) ASTM D5954–98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IBR approved for table 6 to subpart DDDDD.

(78) ASTM D5965–02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, approved June 1, 2013, IBR approved for §§ 63.3151(b) and 63.3951(c).

(79) ASTM D6053–00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for appendix A to subpart MMMM.

(80) ASTM D6093–97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.3521 and 63.5160(c).

(81) 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 §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), and 63.4941(b).

(82) ASTM D6196–03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IBR approved for appendix A to this part: Method 325A and Method 325B.

(83) 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 § 63.3165(e).

(84) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(85) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2003, IBR approved for §§ 63.457(b), 63.997(e), and 63.1349, table 4 to subpart DDDD, table 5 to subpart EEEE, table 4 to subpart UUUU, table 4 subpart ZZZZ, and table 8 to subpart HHHHHHH.

(86) ASTM D6348–03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IBR approved for §§ 63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), 63.7142(a) and (b), tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.

(87) 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 §§ 63.997(e), 63.1571(a), and 63.2354(b), table 5 to subpart EEEE, table 4 to subpart UUUU, §§ 63.7142(a) and (b) and 63.8000(d), and table 4 to subpart SSSSS.

(88) ASTM D6350–98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IBR approved for table 6 to subpart DDDDD.

(89) ASTM D6357–11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IBR approved for table 6 to subpart DDDDD.

(90) ASTM D6376–10, "Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy," Approved July 1, 2010, IBR approved for § 63.849(f).

(91) [Reserved]

(92) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(93) 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 §§ 63.457(b), 63.772(a), 63.772(e), 63.1282(a) and (d), and table 8 to subpart HHHHHHH.

(94) ASTM D6420–99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IBR approved for §§ 63.670(j), Table 4 to subpart UUUU, 63.7142(b), and appendix A to this part: Method 325B.

(95) 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 §§ 63.987(b), 63.997(e), and 63.2354(b), table 5 to subpart EEEE, and §§ 63.2450(j) and 63.8000(d).

(96) 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 § 63.9307(c).

(97) 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 4 to subpart ZZZZ, table 5 to subpart DDDDDD, table 4 to subpart JJJJJJ, and §§ 63.772(e) and (h)) and 63.1282(d) and (g).

(98) 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 § 63.1961(a) and table 3 to subpart YYYY.

(99) ASTM D6721–01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IBR approved for table 6 to subpart DDDDD.

(100) ASTM D6722–01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IBR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJJ.

(101) ASTM D6735–01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, IBR approved for § 63.7142(b), tables 4 and 5 to subpart JJJJJ, and tables 4 and 6 to subpart KKKKK.

(102) ASTM D6751–11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IBR approved for §§ 63.7575 and 63.11237.

(103) 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 §§ 63.2465(d); 63.11646(a); 63.11647(a) and (d); tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD; tables 4 and 5 to subpart JJJJJ; tables 4 and 6 to subpart KKKKK; table 4 to subpart JJJJJJ.

(104) 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 table 5 to subpart UUUUU; appendix A to subpart UUUUU.

(105) ASTM D6883–04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IBR approved for table 6 to subpart DDDDD.

(106) ASTM D6886–18, Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography, approved October 1, 2018, IBR approved for § 63.2354(c).

(107) ASTM D7237–18, Standard Test Method for Free Cyanide and Aquatic Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection, Approved December 1, 2018, IBR approved for § 63.1103(g).

(108) ASTM D7430–11ae1, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IBR approved for table 6 to subpart DDDDD.

(109) 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 §§ 63.1625(b); table 3 to subpart LLLLL; 63.7823(c) through (e), 63.7833(g); 63.11423(c).

(110) [Reserved]

(111) ASTM E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for appendix A to subpart PPPP.

(112) ASTM E180–93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(113) ASTM E260–91, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(114) ASTM E260–96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(115) ASTM E515–95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i).

(116) ASTM E711–87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(117) ASTM E776–87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IBR approved for table 6 to subpart DDDDD.

(118) ASTM E871–82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(119) ASTM UOP539–12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IBR approved for § 63.670(j).

(j) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf.

(1) “BAAQMD Source Test Procedure ST–30—Static Pressure Integrity Test, Underground Storage Tanks,” adopted November 30, 1983, and amended December 21, 1994, IBR approved for § 63.11120(a).

(2) [Reserved]

(k) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for § 63.425(i).

(2) BS EN 14662–4:2005, Ambient air quality standard method for the measurement of benzene concentrations—Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IBR approved for appendix A to this part: Method 325A and Method 325B.

(l) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812–2815, Telephone (916) 327–0900, http://www.arb.ca.gov/.

(1) Method 310, "Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds (ROC) in Aerosol Coating Products," amended May 25, 2018, IBR approved for § 63.8055(b).

(2) Method 428, "Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyle Emissions from Stationary Sources," amended September 12, 1990, IBR approved for § 63.849(a)(13) and (14).

(3) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for § 63.1625(b).

(4) California Air Resources Board Vapor Recovery Test Procedure TP–201.1—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for § 63.11120(b).

(5) California Air Resources Board Vapor Recovery Test Procedure TP–201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for § 63.11120(a).

(6) California Air Resources Board Vapor Recovery Test Procedure TP–201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for § 63.11120(a).

(m) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724–1128, and www.compositepanel.org.

(1) ANSI A135.4–2012, Basic Hardboard, approved June 8, 2012, IBR approved for § 63.4781.

(2) [Reserved]

(n) Environmental Protection Agency. Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566–1745.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program,* November 16, 2010, IBR approved for § 63.99(a).

(2) New Jersey's *Toxic Catastrophe Prevention Act Program,* (July 20, 1998), IBR approved for § 63.99(a).

(3) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a).

(4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a).

(5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)–(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. IBR approved for § 63.99(a).

(6)

(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), IBR approved for § 63.99(a).

(ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801–1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07–1802.09, Env-A 1802.13, Env-A 1802.15–1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05–1803.09; and Appendices B, C, and D; IBR approved for § 63.99(a).

(7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009. IBR approved for § 63.99(a).

(8) California South Coast Air Quality Management District's “Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989,” IBR approved for §§ 63.11173(e) and 63.11516(d).

(9) California South Coast Air Quality Management District's “Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002,” Revision 0, IBR approved for §§ 63.11173(e) and 63.11516(d).

(10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, IBR approved for § 63.99(a).

(11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. IBR approved for § 63.99(a).

(12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at http://www.legis.state.ak.us/basis/folio.asp, IBR approved for § 63.6675.

(13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5–253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for § 63.99(a).

(o) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272–0167, http://www.epa.gov.

(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, published September 2008, IBR approved for §§ 63.3130(c), 63.3161(d) and (g), 63.3165(e), and appendix A to subpart IIII.

(2) EPA–453/R–01–005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards, Final Report, January 2001, IBR approved for § 63.7491(g).

(3) [Reserved]

(4) EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF*;* IBR approved for §§ 63.548(e); 63.864(e); 63.7525(j); 63.8450(e); 63.8600(e); 63.9632(a); 63.9804(f); 63.11224(f); 63.11423(e).

(5) EPA–454/R–99–005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, IBR approved for appendix A to this part: Method 325A.

(6) EPA/600/R–12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for § 63.2163(b).

(7) EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for § 63.1513(d).

(8) SW–846–0011, Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources, Revision 0, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 4 to subpart DDDD.

(9) SW–846–3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(10) SW–846–3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(11) SW–846–5030B, Purge-And-Trap For Aqueous Samples, Revision 2, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).

(12) SW–846–5031, Volatile, Nonpurgeable, Water-Soluble Compounds by Azeotropic Distillation, Revision 0, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).

(13) SW–846–7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(14) SW–846–7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.

(15) SW–846–8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960, 63.11980, and table 10 to subpart HHHHHHH.

(16) SW–846–8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHHH.

(17) SW–846–8260D, Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry, Revision 4, June 2018, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).

(18) SW–846–8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste,

Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHHH.

(19) SW–846–8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960 and 63.11980, and table 10 to subpart HHHHHHH.

(20) SW–846–5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.

(21) SW–846–6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(22) SW–846–6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(23) SW–846–7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(24) SW–846–7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(25) SW–846–9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(26) SW–846–9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(27) SW–846–9250, Chloride (Colorimetric, Automated Ferricyanide AAI), Revision 0, September 1986, in EPA Publication No. SW–846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(28) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(29) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA–821–R–02–019, August 2002, IBR approved for table 6 to subpart DDDDD.

(p) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH–1211 Geneva 20, Switzerland, + 41 22 749 01 11, http://www.iso.org/iso/home.htm.

(1) ISO 6978–1:2003(E), Natural Gas—Determination of Mercury—Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(2) ISO 6978–2:2003(E), Natural gas—Determination of Mercury—Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(3) ISO 16017–2:2003(E): Indoor, ambient and workplace air—sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography—Part 2: Diffusive sampling, May 15, 2003, IBR approved for appendix A to this part: Method 325A and Method 325B.

(q) National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709–3318 or at http://www.ncasi.org.

(1) NCASI Method DI/MEOH–94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§ 63.457 and 63.459.

(2) NCASI Method CI/WP–98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IBR approved for table 4 to subpart DDDD.

(3) NCASI Method DI/HAPS–99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for § 63.459(b).

(4) NCASI Method IM/CAN/WP–99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IBR approved for table 4 to subpart DDDD.

(5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IBR approved for table 4 to subpart DDDD and §§ 63.4751(i) and 63.4752(e).

(r) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605–6000 or (800) 553–6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512–1800.

(1) Handbook 44, Specificiations, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e).

(2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, Third Edition. (A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," Revision 2, dated August 2018, IBR approved for § 63.1208(b).

(ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IBR approved for § 63.7824(e).

(iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IBR approved for §§ 63.7700(b) and 63.7765.

(iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IBR approved for the definition of "Free organic liquids" in §§ 63.10692, 63.10885(a), and the definition of "Free liquids" in § 63.10906.

(v) SW–846 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)," February 2007, IBR approved for § 63.11647(f).

(3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods," NIOSH publication no. 94–113, Fourth Edition, August 15, 1994.

(i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IBR approved for § 63.7732(g).

(ii) [Reserved]

(s) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005–3801, http://www.nerc.com, http://www.nerc.com/files/EOP0002-3_1.pdf.

(1) North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergencies, adopted August 5, 2010, IBR approved for § 63.6640(f).

(2) [Reserved]

(t) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332–8686, http://www.tappi.org.

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDDD.

(2) [Reserved]

(u) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711–3087, telephone number (512) 239–0028, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf.

(1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IBR approved for §§ 63.654(c) and (g), 63.655(i), 63.1086(e), 63.1089, 63.2490(d), 63.2525(r), and 63.11920.

(2) [Reserved]

Editorial Note

Editorial Note: For Federal Register citations affecting § 63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.govinfo.gov.*

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) 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.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

§ 63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

(1) Reduced its total HAP emissions to less than 25 tons per year;

(2) Reduced its emissions of each individual HAP to less than 10 tons per year; and

(3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

(1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet

all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

Table 1 to Subpart A of Part 63 - Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart[a]	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

[a] 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.

Appendix K. 40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 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 as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

§63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.*

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.*

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.*

(1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

§63.6595 When do I have to comply with this subpart?

(a) *Affected sources.*

(1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

Emission and Operating Limitations

§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table

4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

§63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE 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 RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer

Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply

with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c)[reserved]

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

General Compliance Requirements

§63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Testing and Initial Compliance Requirements

§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

§63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq.\ 1)$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(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:

$$F_o = \frac{0.209\ F_d}{F_c} \quad (Eq.\ 2)$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq.\ 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2—15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq.\ 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

$\%CO_2$ = Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) 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;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning

limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote

stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

Continuous Compliance Requirements

§63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. 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.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you

must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need

to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4), 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 RICE in emergency situations.

(2) You may operate your emergency stationary RICE 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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

(ii) [reserved]

(iii) [reserved]

(3) Emergency stationary RICE located at major sources of HAP 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. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP 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 paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per

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) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) 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.

Notifications, Reports, and Records

§63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you

must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(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 purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(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*). 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 §63.13.

§63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Other Requirements and Information

§63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake

HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

§63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

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.

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

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 fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE 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 RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(4)(i) or (ii).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

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 which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil

and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-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 reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2 until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB	

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760

For each . . .	Complying with the requirement to . . .	You must . . .
		hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO, O_2, 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*and* 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 the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device; and	(2) ASTM D6522–00 (Reapproved 2005)[123] (heated probe not necessary) or method 10 of 40 CFR part 60, appendix A–4	(c) The CO concentration must be at 15 percent O_2, dry basis.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. Measure moisture content at the inlet and outlet of the control device as needed to determine CO and O_2 concentrations on a dry basis	(3) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(d) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
2. 4SRB stationary RICE	a. Reduce formaldehyde or THC emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, THC, O_2, 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*and* 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, 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.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device as needed to determine formaldehyde or THC and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[13] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(d) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction	(4) (1) Method 25A, reported as propane, of 40 CFR part 60, appendix A–7	(e) THC concentration must be at 15 percent O_2, dry basis. Results of this test

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		requirement, measure THC at the inlet and the outlet of the control device		consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O_2, 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*and* 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, 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. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location as needed to determine formaldehyde or CO and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[13] provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(d) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(4) Method 10 of 40 CFR part 60, appendix A–4, ASTM D6522–00 (2005),[13]	(e) CO concentration must be at 15 percent O_2, dry basis. Results of this test

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
			method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	consist of the average of the three 1-hour or longer runs.

[1] You may also use methods 3A and 10 as options to ASTM–D6522–00 (2005).
[2] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.
[3] Incorporated by reference, see § 63.14.

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved[a]; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved[a]; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent	i. Annually, according to the requirements in §63.6650.

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
		to 10 percent or more of the gross heat input on an annual basis; and	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate for the purposes specified in § 63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j).
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.15	Availability of information	Yes.	

Appendix A to Subpart ZZZZ of Part 63—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	*7782-44-7*	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines,

thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then

purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2. When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the "sample conditioning phase" once per minute until constant readings are obtained. Then begin the "measurement data phase" and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the "measurement data phase" readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ±3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ±3 percent of the up-scale gas value or ±1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ±0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes.

Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ±5 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ±2 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ±2 percent, or ±1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ±2 percent *or* ±1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

> ***13.2.1 Interference Response.*** The combined NO and NO_2 interference response should be less than or equal to ±5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A—Sampling Run Data.

Facility_____ Engine I.D._____ Date_____											
Run Type:	(_)		(_)		(_)		(_)				
(X)	Pre-Sample Calibration		Stack Gas Sample		Post-Sample Cal. Check		Repeatability Check				
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
"											

Facility_____ Engine I.D._____ Date_____											
Run Type:	(_)			(_)			(_)			(_)	
(X)	Pre-Sample Calibration			Stack Gas Sample			Post-Sample Cal. Check			Repeatability Check	
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″											
Measurement Data Phase											
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Mean											
Refresh Phase											
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Appendix L. 40 CFR Part 63, Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

§63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in §63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in §63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in §63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or

other gasoline-fueled engine or equipment used within the area source is only subject to §63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under §63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

§63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in §63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in §63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

§63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in §63.11111(c) or §63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under §63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

Emission Limitations and Management Practices

§63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b).

§63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

§63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section §63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in §63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under §63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

§63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in §63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in §63.11120.

(f) You must submit the applicable notifications as required under §63.11124.

(g) You must keep records and submit reports as specified in §§63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

Testing and Monitoring Requirements

§63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in §63.11113(e), of a vapor balance system required under §63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline

storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, *see* §63.14).

(b) Each owner or operator choosing, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph §63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in §63.11092(f).

Notifications, Records, and Reports

§63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in §63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later, or at the time you become subject to the control requirements in §63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in §63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011, or no later than 120 days after the source becomes subject to this subpart, whichever is later. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional office and delegated state authority as specified in §63.13. (i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, within 60 days of the applicable compliance date specified in §63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in §63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later, or at the time

you become subject to the control requirements in §63.11118. If your affected source is subject to the control requirements in §63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011, or no later than 120 days after the source becomes subject to this subpart, whichever is later. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional office and delegated state authority as specified in §63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, in accordance with the schedule specified in §63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b).

(5) You must submit additional notifications specified in §63.9, as applicable.

§63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in §63.11118 must keep records of all tests performed under §63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in §63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (*e.g.,* via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

§63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in §63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under §63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

Other Requirements and Information

§63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§63.11116 through 63.11118 and 63.11120.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

§63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in §63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.11092(f) of this part.

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More1

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to §63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in §63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in §63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not

If you own or operate	Then you must
	exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:
	$Pf = 2e^{-500.887/v}$
	Where:
	Pf = Minimum allowable final pressure, inches of water.
	v = Total ullage affected by the test, gallons.
	e = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to §63.11118	Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in §63.11132, and comply with the requirements of item 1 in this Table.

[1]The management practices specified in this Table are not applicable if you are complying with the requirements in §63.11118(b)(2), except that if you are complying with the requirements in §63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in §63.11125(c).

Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in §63.11111.
§63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, §63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in §63.11132.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to §63.11116
§63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, §63.11113 specifies the compliance dates.
§63.6(c)(3)-(4)	[Reserved]		

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. *See* §63.11115 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§63.6(e)(2)	[Reserved]		
§63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§63.6(h)(3)	[Reserved]		
§63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No.
§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, §63.11120(c) specifies conditions for conducting performance tests.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
		emission point, must report all monitoring system results, unless one monitoring system is a backup	
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§63.8(c)(1)(i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in §63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in §63.6(e)(3)	No.
§63.8(c)(2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date, or no later than 120 days after the source becomes subject to this subpart, whichever is later; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.9(k)	Notifications	Electronic reporting procedures	Yes, only as specified in §63.9(j).
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. *See* §63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)	Records	Additional records for CMS	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	No. *See* §63.11126(b) for malfunction reporting requirements.
§63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No.
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No, §63.11130(K) specifies excess emission events for this subpart.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No.
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.