SLR on Behalf of MEA

The following attachments are provided in support of comments on behalf of Matanuska Electric Association.

Attachment I - Details describing basis of proposed change.
Attachment II - Red Line Strike Up version of Title V and Statement of Basis
Attachment III - Source Test Waiver provided to support Comment No. 1 under Attachment I

If you have any questions or concerns, please feel free to contact me.

ATTACHMENT I

Matanuska Electric Association's (MEA's) requested revisions to the Eklutna Generation Station (EGS) Preliminary Permit No. AQ1086TVP02 and associated Statement of Basis (SOB) for the public comment period that ends December 10, 2021.

Note that the bases presented in this table are intended to describe the edits made in a red-line strike-out (RLSO) version of the EGS Preliminary Permit No. AQ1086TVP02, which is included with the comments as **Attachment II** (Permit and SOB) and should be referred to in conjunction with this document.

No.	Location in permit or SOB	Basis of the Request Detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
Preliminary Title V Operating Permit AQ1086TVP02		
Section 4	**Federal Requirements**	
1	New Condition 29.3b after Condition 29.3a	Please incorporate the provisions of the NSPS Subpart JJJJ performance testing waiver that applies to EU IDs 1 through 10, as new condition 29.3b. The performance testing waiver was approved by EPA Region 10 on March 12, 2018, and remains in effect, since MEA has complied with the conditions of the waiver for performance testing of EU IDs 1 through 10. A copy of the NSPS Subpart JJJJ performance testing waiver is included with these comments as **Attachment III**.
Statement of Basis for the Terms and Conditions of Permit No. AQ1086TVP02		
2	Page 3, Footnote 2	Please revise the footnote. Footnote 2 includes a typo and should read "AS 46.14.130(b)" to indicate the correct citation.
3	Page 13, Condition 21.4	Please correct the reference. Condition 21.4 is an incorrect reference. This paragraph pertains to the elements of Condition 21.6.
4	Page 13, New Sections, Condition 21.4 and Condition 21.5	Please include additional sections for missing references for Conditions 21.4 and 21.5.
5	Page 15, Condition 31	Please revise a typographical error. The last sentence under Condition 31, Legal Basis, should end with a period.
6	Page 21, Condition 60	Please revise a typographical error. The last sentence under Condition 60, Factual Basis, should end with a closing parenthetical.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ1086TVP02 Issue Date: Public Comment - November 10, 2021

Expiration Date: Five Years

The Alaska Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Matanuska Electric Association, Inc.**, for the operation of the **Eklutna Generation Station**.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

Citations listed herein are contained within the effective version of 18 AAC 50 at permit issuance. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

All currently applicable stationary source-specific terms and conditions of Air Quality Minor Permit AQ1086MSS03 have been incorporated into this operating permit.

This Operating Permit becomes effective <insert date—30 days after issue date>.

James R. Plosay, Manager

Air Permits Program

Table of Contents

Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AOS .....Air Online Services
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....best available control technology
bhp .....brake horsepower
CATOX .....catalytic oxidation
CAA or The Act .Clean Air Act
CDX.....central data exchange
CEDRI .....compliance and emissions data reporting interface
CFR .....Code of Federal Regulations
CH_2O .....formaldehyde
CO .....carbon monoxide
Department .....Alaska Department of Environmental Conservation
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU ID .....emissions unit identification number
gr./dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
HAP .....hazardous air pollutants [as defined in AS 46.14.990]
hp.....horsepower
H_2S.....hydrogen sulfide
kPa.....kilopascals
kW .....kilowatt
LAER.....lowest achievable emission rate
MACT .....maximum achievable control technology [as defined in 40 CFR 63]
MMBtu/hr.....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R .....monitoring, recordkeeping, and reporting
MW .....Megawatt
NESHAP .....National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
NFPA .....National Fire Protection Association
NG.....natural gas
NO_X .....nitrogen oxides
NO_2.....nitrogen dioxide
NSPS .....New Source Performance Standards [as contained in 40 CFR 60]
O & M .....operation and maintenance
O_2 .....oxygen
ORL.....owner requested limit
PAL .....Plant wide Applicability Limitation
PM_{10} .....particulate matter less than or equal to a nominal ten microns in diameter
$PM_{2.5}$.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm .....parts per million
ppmv, ppmvd .....parts per million by volume on a dry basis
psia .....pounds per square inch (absolute)
PSD .....Prevention of Significant Deterioration
PTE .....potential to emit
SCR.....selective catalytic reduction
SIC. .....Standard Industrial Classification
SO_2 .....sulfur dioxide
tpy .....tons per year
ULSD .....ultra-low sulfur diesel
VOC .....volatile organic compound [as defined in 40 CFR 51.100(s)]
VOL .....volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent
$wt\%S_{fuel}$ .....weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:		**Matanuska Electric Association, Inc.** P.O. Box 2929 Palmer, AK 99645
Stationary Source Name:		**Eklutna Generation Station**
Location:		61º 27´ 34.5" North; 149º 20´ 33.9" West
Physical Address:		28705 Dena'ina Elders Road Chugiak, AK 99567
Owner/Operator:		**Matanuska Electric Association, Inc.** P.O. Box 2929 Palmer, AK 99645
Permittee's Responsible Official and Designated Agent:		Joshua Crowell, Eklutna Generation Station Plant Manager P.O. Box 2929 Palmer, AK 99645
Stationary Source and Building Contact:		Traci Bradford, Environmental Engineer P.O. Box 2929 Palmer, AK 99645 907-761-9374 traci.bradford@mea.coop
Fee Contact:		Traci Bradford, Environmental Engineer P.O. Box 2929 Palmer, AK 99645 907-761-9374
Permit Contact:		Traci Bradford, Environmental Engineer P.O. Box 2929 Palmer, AK 99645 907-761-9374 traci.bradford@mea.coop
Process Description	SIC Code:	4911 – Electric services
	NAICS Code:	221112 – Fossil fuel electric power generation

[18 AAC 50.040(j)(3) & 50.326(a)]
[40 CFR 71.5(c)(1) & (2)]

Section 2. Emissions Unit Inventory and Description

Emissions units (EUs) listed in Table A have specific monitoring, recordkeeping, or reporting conditions in this permit. Emissions unit descriptions and ratings are given for identification purposes only.

Table A - Emissions Unit Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Rating/Size	Fuel	Construction Date
1	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
2	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
3	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
4	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
5	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
6	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
7	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
8	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
9	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
10	Generator Engine	Wärtsilä 18V50DF	17.1 MW	Natural Gas /ULSD	March 2012
11	Fire Pump Engine	John Deere JU6H-UFADN0	197 hp	ULSD	June 2012
12	Black Start Generator Engine	Cummins 1000DQFAD	1,490 hp	ULSD	June 2013
13	Auxiliary Boiler	Cleaver-Brooks FLX200-1650	15.75 MMBtu/hr	Natural Gas /ULSD	June 2013
14	Auxiliary Boiler	Cleaver-Brooks FLX200-1650	15.75 MMBtu/hr	Natural Gas /ULSD	June 2013
17	NG Fuel Heater	Aether C5-G30	8.3 MMBtu/hr	Natural Gas	September 2016
18	Black Start Generator Engine	Cummins 1000DQFAD	1,490 hp	ULSD	June 2013

Note:

EU IDs 15 and 16 are diesel storage tanks and insignificant under 18 AAC 50.326(e).

[18 AAC 50.326(a)]
[40 CFR 71.5(c)(3)]

Section 3. State Requirements

Visible Emissions Standard

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 14, 17, and 18 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j)(4), 50.055(a)(1), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

1.1. For EU ID 11, as long as the emissions unit does not exceed the limit in Condition 14, monitoring shall consist of an annual compliance certification under Condition 64 for the visible emission standard based on reasonable inquiry. Otherwise, monitor, record and report in accordance with Conditions 2 through 4 for the remainder of the permit term.

1.2. For each of EU IDs 12 and 18, as long as the emissions unit does not operate more than 233 hours[1] during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 64 with the visible emission standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 63 if EU ID 12 or EU ID 18 operates more than 233 hours during any consecutive 12-month period and monitor, record and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.

1.3. For EU IDs 1 through 10, 13, and 14, burn natural gas as the primary fuel. Monitoring for these emissions units shall consist of a statement in each operating report required under Condition 63 indicating whether each of these emissions units burned natural gas as the primary fuel during the period covered by the report. If any of these units operated exclusively on ULSD during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 9 for that emissions unit.

1.4. For EU ID 17, burn only natural gas as fuel. In each operating report under Condition 63, indicate whether the emissions unit burned only natural gas during the period covered by the report. Report under Condition 62 if any fuel other than natural gas is burned.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)]

[1] Annual operation of 234 hours is equivalent to the worst-case significant emissions threshold in 18 AAC 50.326(e) for EU IDs 12 and 18.

Visible Emissions Monitoring, Recordkeeping and Reporting (MR&R)

Liquid Fuel-Burning Equipment

2. Visible Emissions Monitoring. When required by Condition 1.1 or 1.2, or in the event of replacement[2] during the permit term, the Permittee shall observe the exhaust of EU IDs 11, 12, and 18 for visible emissions using either the Method 9 Plan under Condition 2.3 or the Smoke/No-Smoke Plan under Condition 2.4.

2.1. The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 2.5.

2.2. The Permittee may, for each unit, elect to continue the visible emissions monitoring schedule specified in Conditions 2.3.b through 2.3.e or Conditions 2.4.b through 2.5 that remains in effect from a previous permit.

2.3. **Method 9 Plan.** For all observations in this plan, observe emissions unit exhaust, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.[3]

a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhausts of EU IDs 11, 12 and 18 according to the following criteria:

(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.4

(ii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[4] Except as provided in Condition 2.3.e, after the First Method 9 observation:

(A) For EU IDs 11, 12, and 18, comply with Conditions 1.1 and 1.2, as applicable.

(iii) For each of EU IDs 11, 12, and 18, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Condition 1.1 or 1.2; or for an emissions unit with intermittent operations, within the first 30 days during the units next scheduled operation.

b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.3.a, perform observations at least once in each calendar month that the emissions unit operates.

[2] "*Replacement*," as defined in 40 CFR 51.166(b)(32).
[3] Visible emissions observations are not required during emergency operations
[4] *Fully operational"* means upon completion of all functionality checks and commissioning after unit installation. *"Installation"* is complete when the unit is ready for functionality checks to begin.

c. Semiannual Method 9 Observations. After at least three monthly observations under Condition 2.3.b, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations:

(i) no later than seven months, but not earlier than five months, after the preceding observation, or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following seven months after the preceding observation.

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 2.3.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations:

(i) no later than 12 months, but not earlier than 10 months, after the preceding observation; or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following 14 months after the preceding observation.

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.3.b, and continue monitoring in accordance with the Method 9 Plan.

2.4. **Smoke/No Smoke Plan.** Observe the emissions unit exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

a. Initial Monitoring Frequency. Observe the emissions unit exhaust during each calendar day that the emissions unit operates for a minimum of 30 days.

b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 2.4.a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.

c. Smoke Observed. If visible emissions are observed, comply with Condition 2.5.

2.5. **Corrective Actions Based on Smoke/No Smoke Observations**. If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 2.4, then the Permittee shall either begin the Method 9 plan of Condition 2.3, or

a. initiate actions to eliminate visible emissions from the emissions unit exhaust within 24 hours of the observation;

b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions; and

c. after completing the actions required under Condition 2.5.a,

(i) conduct smoke/no smoke observations in accordance with Condition 2.4.

(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 2.4.a is completed; and

(B) continue as described in Condition 2.4.b; or

(ii) if the actions taken under Condition 2.5.a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 2.5.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time, take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 2.4.a.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)]

3. Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

3.1. For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emission Observation Form in Section 11;

(ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate or best estimate, if unknown) on the sheet at the time opacity observations are initiated and completed;

(iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emission Observation Form in Section 11, and

(v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

b. To determine the six-consecutive-minute average opacity,

(i) divide the observations recorded on the record sheet into sets of 24 consecutive observations;

(ii) sets need not be consecutive in time and in no case shall two sets overlap;

(iii) for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24;

(iv) record the average opacity on the sheet.

c. Calculate and record the highest six-consecutive- and 18-consecutive-minute average opacities observed.

3.2. If using the Smoke/No Smoke Plan of Condition 2.4, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

c. whether visible emissions are present or absent in the emissions unit exhaust;

d. a description of the background to the exhaust during the observation;

e. if the emissions unit starts operation on the day of the observation, the startup time of the emissions unit;

f. name and title of the person making the observation; and

g. operating rate (load or fuel consumption rate or best estimate, if unknown).

3.3. The records required by Conditions 3.1 and 3.2 may be kept in electronic format.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(ii)]

4. Visible Emissions Reporting. The Permittee shall report as follows:

4.1. In the first operating report required in Condition 63 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or rest the visible emissions monitoring schedule.

4.2. Include in each operating report required under Condition 63 for the period covered by the report:

a. which visible-emissions plan of Condition 2 was used for each emissions unit; if more than one plan was used, give the time periods covered by each plan;

b. for all Method 9 Plan observations:

(i) copies of the observation results (i.e. opacity observations) for each emissions unit, except for the observations the Permittee has already supplied to the Department; and

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-consecutive- and 18-consecutive-minute average opacities observed; and

(C) dates when one or more observed six-consecutive-minute average opacities were greater than 20 percent;

c. for each emissions unit under the Smoke/No Smoke Plan, the number of days that smoke/no smoke observations were made and which days, if any, that visible emissions were observed; and

d. a summary of any monitoring or recordkeeping required under Conditions 2 and 3 that was not done.

4.3. Report under Condition 62:

a. the results of Method 9 observations that exceed 20 percent average opacity for any six-consecutive-minute period; and

b. if any monitoring under Condition 2 was not performed when required, report within three days of the date the monitoring was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(iii)]

Particulate Matter (PM) Emissions Standard

5. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow PM emitted from EU IDs 1 through 14, 17, and 18 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(b)(1), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

5.1. For EU ID 11, as long as the emissions unit does not exceed the limit in Condition 14, monitoring shall consist of an annual compliance certification under Condition 64 for the PM emissions standard based on reasonable inquiry. Otherwise, monitor, record and report in accordance with Conditions 6 through 8 for the remainder of the permit term.

5.2. For each of EU IDs 12 and 18, as long as the emissions unit does not operate more than 233 hours during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 64 with the PM emission standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 63 if EU ID 12 or EU ID 18 operates more than 233 hours during any consecutive 12-month period and monitor, record and report in accordance with Conditions 6 through 8 for the remainder of the permit term for that emissions unit.

5.3. For EU IDs 1 through 10, 13, and 14, the Permittee shall comply with Condition 1.3.

5.4. For EU ID 17, the Permittee shall comply with Condition 1.4.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)]

Particulate Matter MR&R

Liquid Fuel-Burning Engines

6. Particulate Matter Monitoring. The Permittee shall conduct source tests on EU IDs 11, 12 and 18 to determine the concentration of PM in the exhaust of each of the emissions units as follows:

6.1. If the result of any Method 9 observation conducted under Condition 2.3 for any of EU IDs 11, 12, and 18 is greater than the criteria of Conditions 6.2.a or 6.2.b, or if the Method 9 observation conducted under Condition 9.3 for EU IDs 1 through 10 exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 CFR 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 6.2; or

b. except as exempted under Condition 6.4, conduct a PM source test according to requirements set out in Section 6.

6.2. Take corrective action or conduct a PM source test in accordance with Condition 6.1, if any Method 9 observation under Condition 2.3 results in an 18-minute average opacity greater than

a. 20 percent for an emissions unit with an exhaust stack diameter that is equal to or greater than 18 inches; or

b. 15 percent for an emissions unit with an exhaust stack diameter that is less than 18 inches, unless the Department has waived this requirement in writing.

6.3. During each one-hour PM source test run under Condition 6.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

6.4. The PM source test requirement in Condition 6.1.b are waived for an emissions unit if:

a. a source test on that unit has shown compliance with the PM standard during this permit term; or

b. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.3) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 6.2.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)]

7. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any source test and visible emissions observations conducted under Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(ii)]

8. Particulate Matter Reporting. The Permittee shall report as follows:

8.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 6.2.a or 6.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 6.2.

8.2. In each operating report under Condition 63, include:

a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 6; and

b. copies of any visible emissions observation results greater than the thresholds of Condition 6.2, if they were not already submitted.

8.3. Report in accordance with Condition 62:

a. anytime the results of a source test exceed the PM emissions standard in Condition 5; or

b. if the requirements under Condition 6.1 were triggered and the Permittee did not comply on time with either Condition 6.1.a or 6.1.b. Report the deviation within 24 hours of the date compliance with Condition 6.1 was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(iii)]

Visible Emissions & Particulate Matter MR&R

Dual Fuel-Burning Equipment

9. The Permittee shall monitor, record, and report the monthly hours of operation of EU IDs 1 through 10, 13, and 14 when operating exclusively on ULSD.

9.1. For any of EU IDs 1 through 10, 13, and 14 that does not exceed 400 hours of operation per calendar year on ULSD exclusively, monitoring of compliance for visible emissions and PM shall consist of an annual compliance certification under Condition 64 based on reasonable inquiry.

9.2. For any of EU IDs 1 through 10, 13, and 14, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 9.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on ULSD exclusively; or for an emissions unit with intermittent ULSD use, during the next scheduled operation on ULSD exclusively.

9.3. When required to do so by Condition 9.2, observe the emissions unit exhaust, following 40 CFR 60, Appendix A-4 Method 9, for 18-minutes to obtain 72 consecutive 15-second opacity observations.

a. If the observation exceeds the standard in Condition 1, monitor EU IDs 1 through 10 as described in Condition 6 and monitor, record, and report for EU IDs 13 and 14 as follows:

(i) Within six months of that Method 9 observation, either:

(A) take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 CFR 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than an 18-minute average opacity of 20 percent; or

(B) conduct a PM source test according to the requirements in Section 6. The PM source test is waived for an emissions unit if a source test on that unit has shown compliance with the PM standard during this permit term or if corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 observations conducted thereafter within a six-month period show visible emissions less than 20 percent average opacity.

(ii) During each one-hour PM source test run under Condition 9.3.a(i)(B), observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

(iii) Keep records of the results of any source test and visible emissions observations conducted under Conditions 9.3.a(i) and 9.3.a(ii).

(iv) Notify the Department of any Method 9 observation that results in an 18-minute average opacity greater than 20 percent within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than 20 percent.

(v) In each operating report required by Condition 63, include:

(A) a summary of the results of any source test and visible emissions observations conducted under Conditions 9.3.a(i) and 9.3.a(ii).

(B) copies of any visible emissions observation results greater than the threshold in Condition 9.3.a(iv), if they were not already submitted.

(vi) Report in accordance with Condition 62 any time the results of a source test exceed the PM emission standard in Condition 5.

b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on ULSD exclusively, during a calendar year.[5]

9.4. Keep records and report in accordance with Conditions 3, 4, 7, 8, and 9.3.a(iii) through 9.3.a(vi), as applicable.

9.5. Report under Condition 62 if the Permittee fails to comply with any of Conditions 9.2 through 9.4.

[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), & 50.346(c)]
[40 CFR 71.6(a)(3) & 71.6(c)(6)]

Sulfur Compound Emissions Standard

10. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 through 14, 17, and 18 to exceed 500 ppm averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(c), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

Sulfur Compound MR&R

11. Sulfur Compound Emissions MR&R. To ensure compliance with Condition 10, the Permittee shall comply as follows:

[5] If the requirement to monitor is triggered more than once in a calendar month, only one Method 9 observation is required to be conducted by the stated deadline for that month.

Fuel Oil[6]

11.1. **Liquid Fuel-Burning Equipment**. For EU IDs 1 through 14 and 18, comply with the fuel sulfur content limit and associated MR&R requirements in Condition 12.2.

Fuel Gas

11.2. **Natural Gas-Burning Equipment**. For EU IDs 1 through 10, 13, 14 and 17, comply with the fuel sulfur content limit and associated MR&R requirements in Condition 12.1.

[18 AAC 50.040(j)(4), & 50.326(j)(3)]
[40 CFR 71.6(a)(3) & (c)(6)]

Preconstruction Permit[7] Requirements

Limits to Avoid Minor Permitting under 18 AAC 50.502(c)(1)(C)

12. Fuel Sulfur Requirements. The Permittee shall monitor the sulfur content of the ULSD and hydrogen sulfide (H_2S) content of the natural gas burned as follows.

12.1. The H_2S content of the natural gas burned in EU IDs 1 through 10, 13, 14, and 17 shall not exceed 20 parts per million by volume (ppmv).

a. Monitor and record the H_2S content of the natural gas monthly by obtaining and keeping a current certified letter, valid purchase contract, tariff sheet, or transportation contract from the supplier stipulating that the natural gas supplied during the month does not contain more than 20 ppmv H_2S.

b. Report in the operating report under Condition 63 the monthly H_2S content of the natural gas. Report under Condition 62 if the H_2S content of the natural gas exceeds 20 ppmv.

12.2. The sulfur content of the diesel fuel burned in EU IDs 1 through 10, 13, and 14 when burning diesel and in EU IDs 11, 12, and 18 shall not exceed 15 parts per million by weight (ppmw) of sulfur.

a. Monitor and record monthly the sulfur content of the diesel fuel burned by obtaining and keeping a current certified letter or fuel receipts from the diesel fuel supplier that the diesel fuel supplied during the month was ULSD.

b. Report in the operating report under Condition 63 the type of diesel fuel received for each shipment. Report under Condition 62 if the fuel received was not ULSD.

[Condition 15, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

[6] *Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 CFR 60.41b.

[7] *Preconstruction Permit* refers to federal PSD Permits, state-issued permits-to-operate issued on or before January 17, 1997 (these permits cover both construction and operations), construction permits issued on or after January 18, 1997, and minor permits issued after October 1, 2004.

Owner Requested Limits to Avoid Classification as PSD Major Source

13. Limits for EU IDs 1 through 10. The Permittee shall limit the combined hours of operation of EU IDs 1 through 10 to no more than 1,680 hours per 12-month rolling period when firing ultra-low sulfur diesel (ULSD) exclusively.

13.1. The Permittee shall burn only natural gas and ULSD in EU IDs 1 through 10.

13.2. Install and maintain a non-resettable hour meter on EU IDs 1 through 10.

13.3. Monitor and record the hours of operation each month for each of EU IDs 1 through 10 when firing ULSD exclusively.

13.4. By the end of each calendar month, calculate and record the combined hours of operation for EU IDs 1 through 10 during the previous month, then calculate the 12-month rolling combined hours for EU IDs 1 through 10 when firing ULSD exclusively.

13.5. Report in the operating report under Condition 63 the rolling 12-month combined hours of operation for EU IDs 1 through 10 when firing ULSD exclusively.

13.6. Notify the Department under Condition 62 if the consecutive 12-month combined hours of operation for EU IDs 1 through 10, when firing ULSD exclusively, exceed 1,680 hours.

[Condition 5, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

14. Limit for EU ID 11: The Permittee shall limit the operation of EU ID 11 to no more than 500 hours per year.

14.1. Install and maintain a non-resettable hour meter on EU ID 11.

14.2. Monitor and record the monthly hours of operation for EU ID 11.

14.3. By the end of each month, calculate and record the operating hours of EU ID 11 for the previous month.

14.4. Report in the operating report under Condition 63 the rolling 12-month hours of operation for EU ID 11.

14.5. Notify the Department under Condition 62 if the rolling 12-month hours of operation for EU ID 11 exceed 500 hours.

[Condition 6, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

15. Limits for EU IDs 13 and 14: The Permittee shall limit the combined hours of operation of EU IDs 13 and 14 to no more than 1,000 hours per rolling 12-month period when firing ULSD exclusively.

15.1. The Permittee shall fire only natural gas and ULSD in EU IDs 13 and 14.

15.2. Install and maintain a non-resettable hour meter on each of EU IDs 13 and 14.

15.3. Monitor and record the monthly operating hours for each of EU IDs 13 and 14 when firing ULSD exclusively.

15.4. By the end of each month, calculate and record the combined operating hours of EU IDs 13 and 14 during the previous month, then calculate the rolling 12-month combined hours for EU IDs 13 and 14 when firing ULSD exclusively.

15.5. Report in the operating report under Condition 63 the rolling 12-month combined operating hours for EU IDs 13 and 14 when firing ULSD exclusively.

15.6. Notify the Department under Condition 62 if the rolling 12-month combined hours of operation for EU IDs 13 and 14, when firing ULSD exclusively, exceed 1,000 hours.

[Condition 7, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

16. Control Equipment: The Permittee shall operate and maintain a combined selective catalytic reduction (SCR) and catalytic oxidation (CATOX) control equipment downstream of each of EU IDs 1 through 10 according to the manufacturer's instructions and as follows:

16.1. For the combined control equipment[8], while operating on natural gas, monitor and record hourly:

a. the rate of injection of the reducing aqueous ammonia reagent into the flue gas leaving the emissions unit. The 3-hour rolling average ammonia injection rate shall be no less than 1.0 gallons per hour (gal/hr) and no more than 38.5 gal/hr[9], except during startup and shutdown.

b. the temperature of the flue gas leaving the combined control equipment. The 3-hour rolling average temperature of the flue gas leaving the combined control equipment shall be no less than 536°F and no more than 997°F[10], except during startup and shutdown.

c. the pressure drop across the combined control equipment. The 3-hour rolling average pressure drop shall be no less than 1.5 inches of water and no more than 10 inches of water, except during startup and shutdown.

16.2. Keep on site the necessary manufacturer-recommended spare parts, reagents, catalysts, and operation manual for the control equipment.

16.3. In case of equipment malfunction, implement manufacturer-recommended corrective actions and record:

[8] SCR and CATOX with the CATOX downstream of the SCR.
[9] The minimum injection rate is from the permit application; maximum injection rate is from the manufacturer's specifications.
[10] The temperature rates are from the manufacturer specifications.

a. complete description of the corrective action; and

b. date(s) of the corrective action

16.4. Keep records of:

a. all control equipment system repairs;

b. hourly operating parameters established in Condition 16.1, dates and times each control equipment is started up or shut down;

c. system alarm logs including time and date of occurrence; and

d. receipts for all aqueous ammonia purchases (with dates and quantities).

16.5. Report under Condition 62 all:

a. control equipment malfunctions and associated corrective actions;

b. operating parameters that are outside the ranges in Condition 16.1; and

c. periods (starting and ending hour) during which a control equipment was not operating within the ranges established in Condition 16.1 while its associated generator was operating.

[Condition 8, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

Limit to Avoid Classification as HAP Major Source

17. Formaldehyde (CH_2O) Emission Limit: The Permittee shall limit CH_2O emissions from EU IDs 1 through 10 while firing natural gas to no more than 9.6 tons per year (tpy) during any consecutive 12 months by operating and maintaining the control equipment as described in Condition 16.

[Condition 9, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

Ambient Air Quality Protection Requirements

18. Annual NO_2 Ambient Air Quality Protection: To protect the annual NO_2 ambient air quality standard, the Permittee shall:

18.1. For EU IDs 1 through 10, the Permittee shall maintain a release height for each stack that equals or exceeds 30.0 meters above grade.

[Condition 13, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

19. Annual NO_2 and 24-hr PM_{10} Ambient Air Quality Protection: To protect the annual NO_2 and 24-hr PM_{10}, the combined operating hours for EU IDs 12 and 18 shall not exceed 1,000 hours per rolling 12-month period.

19.1. Install and maintain a non-resettable hour meter on each of EU IDs 12 and 18.

19.2. Monitor and record the hours of operation of each emissions unit and the combined hours of operation for EU IDs 12 and 18 for each month.

19.3. At the end of each month, calculate and record for the previous month, the combined hours of operation for EU ID 12 and EU ID 18 during the month, then calculate the combined 12-month rolling total hours of operation by adding the hours of operation for the previous 11 months.

19.4. Report in the operating report under Condition 63 the combined rolling 12-month hours of operation for EU IDs 12 and 18.

19.5. Notify the Department under Condition 62 should the combined consecutive 12-month operating hours for EU IDs 12 and 18 exceed 1,000 hours.

[Condition 14, Minor Permit AQ1086MSS03, 11/6/2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

Insignificant Emissions Units

20. For emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

20.1. **Visible Emissions Standard**. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.050(a) & 50.055(a)(1)]

20.2. **Particulate Matter Standard**. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1)]

20.3. **Sulfur Standard**. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c)]

20.4. **General MR&R for Insignificant Emissions Units**

a. The Permittee shall submit the certification of compliance of Condition 64 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 45;

c. The Permittee shall report in the operating report required under Condition 63 if an emissions unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds; and

d. No other monitoring, recordkeeping or reporting is required for the insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 20.1, 20.2, and 20.3.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(b)(4)]
[40 CFR 71.6(a)(1) & (a)(3)]

Section 4. Federal Requirements

40 CFR Part 60 New Source Performance Standards (NSPS)

Subpart A – General Provisions

21. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[11] or existing facility[12] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator[13] written notification or, if acceptable to both the EPA and the Permittee, electronic notification as follows:

[18 AAC 50.035 & 50.040(a)(1)]
[40 CFR 60.7(a) & 60.15(d), Subpart A]

21.1. A notification of the date that construction (or reconstruction as defined under 40 CFR 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 complete form.

[40 CFR 60.7(a)(1), Subpart A]

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

[40 CFR 60.7(a)(3), Subpart A]

21.3. 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 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include:

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

c. productive capacity of the facility before and after the change, and

d. the expected completion date of the change.

[40 CFR 60.7(a)(4), Subpart A]

21.4. A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

[40 CFR 60.7(a)(5), Subpart A]

[11] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.
[12] *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, as defined in 40 CFR 60.2.
[13] The Department defines "Administrator" in 18 AAC 50.990(2).

21.5. A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1). The notifications shall also include, if appropriate, a request for the EPA to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

[40 CFR 60.7(a)(6), Subpart A]

21.6. 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 replacement is commenced and must including the following information:

a. name and address of the owner or operator,

b. the location of the existing facility,

c. a brief description of the existing facility and the components that are to be replaced,

d. a description of the existing and proposed air pollution control equipment,

e. an estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,

f. the estimated life of the existing facility after the replacements, and

g. a discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

[40 CFR 60.15(d), Subpart A]

22. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU ID(s) 1 through 14 and 18, any malfunction of the air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU ID(s) 1 through 14 and 18 is inoperative.

[18 AAC 50.040(a)(1)]
[40 CFR 60.7(b), Subpart A]

23. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to Section 6 and as required in this condition on any affected facility.

23.1. Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of 40 CFR 60.8, 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 40 CFR Part 60, and at such other times as may be required by EPA, the owner or operator of such facility shall conduct performance test(s) and furnish EPA and the Department a written report of the results of such performance test(s).

[18 AAC 50.040(a)(1)]
[40 CFR 60.8(a), Subpart A]

24. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU ID(s) 13 and 14 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU ID(s) 13 and 14.

[18 AAC 50.040(a)(1)]
[40 CFR 60.11(d), Subpart A]

25. NSPS Subpart A Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any standard in Condition 27, 28, or 29, nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1 through 14 and 18 would have been in compliance with applicable requirements of 40 CFR Part 60 if the appropriate performance or compliance test or procedure had been performed.

[18 AAC 50.040(a)(1)]
[40 CFR 60.11(g), Subpart A]

26. NSPS Subpart A Concealment of Emissions. The Permittee shall not 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 a standard set forth in Condition 27, 28, or 29. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[18 AAC 50.040(a)(1)]
[40 CFR 60.12, Subpart A]

NSPS Subpart Dc – Steam Generating Units

NSPS Subpart Dc Applicability

27. For EU IDs 13 and 14, the Permittee shall comply with any applicable requirement in 40 CFR 60 Subpart Dc for small steam generating units for which construction is commenced after June 9, 1989 and that has a maximum design capacity of 100 MMBtu/hr or less but greater than or equal to 10 MMBtu/hr.

[18 AAC 50.040(a)(2)(D), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.40c(a), Subpart Dc]

NSPS Subpart Dc Sulfur Dioxide Standard

27.1. At all times, including periods of startup, shutdown, and malfunction, when EU IDs 13 and 14 combust fuel oil, the Permittee shall **either**:

a. emit no more than 0.5 lb SO_2/MMBtu (215 ng/J) heat input from fuel oil combusted, **or**

b. combust fuel oil that contains no more than 0.5 percent sulfur by weight.

[18 AAC 50.040(a)(2)(D)]
[40 CFR 60.42c(d) & (i), Subpart Dc]

NSPS Subpart Dc MR&R Requirements

27.2. Compliance with the emission limits or fuel oil sulfur limits under Condition 27.1 shall be determined based on a certification from the fuel supplier and demonstrated by complying with Condition 12.2.

[40 CFR 60.42c(h)(1), 60.44c(h), & 60.46c(e), Subpart Dc]

27.3. The Permittee shall maintain records consistent with Condition 58 and shall submit reports to EPA as follows:

a. Include the calendar dates covered in the reporting period and a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[40 CFR 60.48c(d), (e)(l) & (11), Subpart Dc]

b. Fuel supplier certification shall include the following information:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

[40 CFR 60.48c(f)(l), Subpart Dc]

c. The reporting period for the reports required under Condition 27.3 is each six-month period. All reports shall be submitted to the EPA and shall be postmarked by the 30th day following the end of the reporting period.

[40 CFR 60.48c(j), Subpart Dc]

27.4. Except as provided under Condition 27.5, for each of EU IDs 13 and 14, the Permittee shall record the amount of each fuel combusted during each operating day and maintain the records consistent with Condition 58.

27.5. As an alternative to meeting the requirements of Condition 27.4, the Permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

[18 AAC 50.040(a)(2)(D)]
[40 CFR 60.48c(g)(1) & (2), Subpart Dc]

NSPS Subpart IIII [14]– Compression Ignition Internal Combustion Engines

NSPS Subpart IIII Applicability and Compliance Requirements

28. For EU IDs 11, 12, and 18, listed in Table A, the Permittee shall comply with the applicable requirements in 40 CFR 60 Subpart IIII for stationary compression ignition (CI) internal combustion engine (ICE) whose construction[15] commences after July 11, 2005 where the stationary CI ICE is manufactured after April 1, 2006 (emergency units, EU IDs 12 and 18) and manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006 (EU ID 11).

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4200(a)(2), Subpart IIII]

28.1. Comply with the applicable requirements of 40 CFR 60.4208 for importing or installing stationary CI ICE.

[40 CFR 60.4208, Subpart IIII]

28.2. Except as permitted under Condition 28.3:

a. Operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions over the entire life of the engine;

b. Change only those emission-related settings that are permitted by the manufacturer; and

c. Meet the requirements of 40 CFR part 1068, as they apply to you.

[40 CFR 60.4206 & 60.4211(a), Subpart IIII]

28.3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

[40 CFR 60.4211(g), Subpart IIII]

a. For EU IDs 11, 12, and 18, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrated compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(2) & (g)(3), Subpart IIII]

[14] The provisions of NSPS Subpart IIII listed in Condition 28 are current as amended through December 4, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in this condition.

[15] For the purposes of NSPS Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator as defined in 40 CFR 60.4200(a).

b. For EU IDs 12 and 18, conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3), Subpart IIII]

28.4. Operate EU IDs 11, 12, and 18 according to the requirements in 40 CFR 60.4211(f)(1) through 40 CFR 60.4211(f)(3). In order for the engine to be considered an emergency stationary ICE under NSPS Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through 40 CFR 60.4211(f)(3), is prohibited. If you do not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through 40 CFR 60.4211(f)(3), the engine will not be considered an emergency engine under 40 CFR 60 Subpart IIII and must meet all requirements for non-emergency engines.

[40 CFR 60.4211(f), Subpart IIII]

28.5. Comply with the applicable provisions of 40 CFR 60 Subpart A as specified in Table 8 to Subpart IIII.

[40 CFR 60.4218 & Table 8, Subpart IIII]

NSPS Subpart IIII Fuel Requirements

28.6. For EU IDs 11, 12, and 18, the Permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel with the following specifications:

a. Maximum sulfur content of 15 ppm.

b. Diesel fuel must meet one of the following standards:

(i) Minimum cetane index of 40.

(ii) Maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b), Subpart IIII]
[40 CFR 1090.305, Subpart D]

NSPS Subpart IIII Emission Standards

28.7. The Permittee shall comply with the emission standards in Conditions 28.8 and 28.9 by purchasing an engine certified to the emission standards specified in 40 CFR 60.4205(b) (for EU IDs 12 and 18) and 60.4205(c) (for EU ID 11), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted under Condition 28.3.[16]

[40 CFR 60.4211(c), Subpart IIII]

[16] EU IDs 11, 12, and 18 were identified in the application as certified engines.

28.8. For EU IDs 12 and 18, the Permittee must comply with the Tier 2 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR Part 1039, Appendix I, for all pollutants and the smoke standards, for the same model year and maximum engine power:

a. 6.4 g/kW-hr for NOx + NMHC;

b. 3.5 g/KW-hr for CO;

c. 0.2 g/kW-hr for PM; and

d. Smoke from EU IDs 12 and 18 may not exceed the following standards:

(i) 20 percent during the acceleration mode.

(ii) 15 percent during the lugging mode.

(iii) 50 percent during the peaks in either the acceleration or lugging modes.

[40 CFR 60.4205(b) & 60.4202(a)(2), Subpart IIII]
[40 CFR 1039, Table 2 to Appendix I & 1039.105(b), Subpart I]

28.9. For EU ID 11, the Permittee shall comply with the applicable emission standards in Table 4 to NSPS Subpart IIII, for all pollutants.

a. 4.0 g/kW-hr for NMHC + NOx;

b. 3.5 g/kW-hr for CO; and

c. 0.20 g/kW-hr for PM

[40 CFR 60.4205(c) & Table 4, Subpart IIII]

NSPS Subpart IIII Monitoring and Recordkeeping Requirements

28.10. For EU IDs 11, 12, and 18, the Permittee shall meet the monitoring and recordkeeping requirements as follows:

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)& (a)(3)]

a. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine, if one is not already installed.

[40 CFR 60.4209(a), Subpart IIII]

b. If you are an owner or operator of an emergency stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in Conditions 28.7 and 28.9, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

(i) Keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

[40 CFR 60.4209(b) & 60.4214(c), Subpart IIII]

c. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b), Subpart IIII]

NSPS Subpart IIII Reporting Requirements

28.11. Include with the operating report under Condition 63 records of the operational hours and the reason the engine was in operation as required in Condition 28.10.c for the period covered by the report.

28.12. Report in accordance with Condition 62 if any of the requirements in Conditions 28.1 through 28.10 were not met.

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(iii) & (c)(6)]

NSPS Subpart JJJJ – Spark Ignition Internal Combustion Engines

NSPS Subpart JJJJ Applicability and Compliance Requirements

29. For EU IDs 1 through 10, the Permittee shall comply with all applicable requirements of NSPS Subpart JJJJ for stationary spark ignition (SI) internal combustion engine whose construction, modification, or reconstruction commences after June 12, 2006.

[18 AAC 50.040(a)(2)(PP), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4230, Subpart JJJJ]

29.1. Operate and maintain stationary SI ICE that achieve the emission standards as required in Condition 29.4 over the entire life of the engine.

[40 CFR 60.4234, Subpart JJJJ]

29.2. Comply with the applicable provisions of NSPS Subpart A as specified in Table 3 to Subpart JJJJ.

[40 CFR 60.4246 & Table 3, Subpart JJJJ]

29.3. For EU ID 1 through 10, the Permittee shall comply with the following:

a. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the emission standards in Condition 29.4.

[40 CFR 60.4243(b)(2)(ii), Subpart JJJJ]

b. **Performance Test Waiver.** As allowed under the performance test waiver approved by EPA Region 10 on March 12, 2018, the Permittee may elect to test only two of EU IDs 1 through 10, in lieu of the testing in Condition 29.3.a, to demonstrate compliance with the emission standards in Condition 29.4. This waiver is subject to Conditions 29.3.b(i) through 29.3.b(v) and automatically terminates if these conditions are not met:

(i) During each scheduled performance test, at least two of EU IDs 1 through 10 shall be tested. After any five consecutive performance tests (or one half the sum of the remaining engines, rounding up to a whole number if necessary, if any engines have been retired from service or have become ineligible for the waiver), all of EU IDs 1 through 10 covered by the waiver shall have been tested.

(ii) The Permittee shall perform each subsequent test of EU IDs 1 through 10 within 3 years from the date of the previous test, or before such a time that any of EU IDs 1 through 10 covered by the waiver has operate 8,760 hours from the date of the previous test, whichever comes first.

(iii) EU IDs 1 through 10 must remain subject to federally-enforceable permit requirements that provide for continuous operation of the SCR and CATOX systems, continuous monitoring of SCR and CATOX operating parameters, and recordkeeping and reporting requirements that are consistent with this permit.

(iv) Emissions of any pollutant regulated by NSPS Subpart JJJJ from any tested engine must remain at or below 50 percent of the level of the standard.

(v) EU IDs 1 through 10 must remain at the MEA Eklutna Generation Station located southwest of Palmer, Alaska.

[USEPA Region 10 Test Waiver, 3/12/2018]
[40 CFR 60.8(b)(4), Subpart A]

NSPS Subpart JJJJ Emission Standards

29.4. For EU IDs 1 through 10, the Permittee must meet the following emission standards:

[40 CFR 60.4233(e), Subpart JJJJ]

a. 1.0 g/hp-hr (82 ppmvd at 15 percent O_2) for NOx

b. 2.0 g/hp-hr (270 ppmvd at 15 percent O_2) for CO

c. 0.7 g/hp-hr (60 ppmvd at 15 percent O_2) for VOC[17]

[40 CFR 60.4233(e) & Table 1, Subpart JJJJ]

[17] For purposes of NSPS Subpart JJJJ, when calculating emissions of volatile organic compounds from EU IDs 1-10, emissions of formaldehyde should not be included. [Table 1 Footnote d, Subpart JJJJ]

NSPS Subpart JJJJ Testing Requirements

29.5. For EU ID 1 through 10, the Permittee shall comply with the following:

a. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in Conditions 29.5.a(i) through 29.5.a(vii) below.

[40 CFR 60.4244, Subpart JJJJ]

(i) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to NSPS Subpart JJJJ.

(ii) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(iii) You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(iv) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of 40 CFR 60.4244.

(v) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of 40 CFR 60.4244.

(vi) For purposes of NSPS Subpart JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR 60.4244.

(vii) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR 60.4244. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR 60.4244.

[40 CFR 60.4244(a) through (g), Subpart JJJJ]

NSPS Subpart JJJJ Notification, Reporting, and Recordkeeping Requirements

29.6. For EU ID 1 through 10, the Permittee must meet the following notification, reporting and recordkeeping requirements.

[40 CFR 60.4245, Subpart JJJJ]

a. Owners and operators of all stationary SI ICE must keep records of the information in Conditions 29.6.a(i) through 29.6.a(iii) of this permit.

[40 CFR 60.4245(a), Subpart JJJJ]

(i) All notifications submitted to comply with NSPS Subpart JJJJ and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary SI ICE is not a certified engine, documentation that the engine meets the emission standards.

[40 CFR 60.4245(a)(1), (2) & (4), Subpart JJJJ]

b. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in Condition 29.5.a within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference - see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

[40 CFR 60.4245(d), Subpart JJJJ]

29.7. Report in accordance with Condition 62 if any of the requirements in Conditions 29.1 through 29.6 were not met.

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP Subpart ZZZZ – Stationary RICE

30. NESHAP Subpart ZZZZ Applicability. For EU IDs 1 through 12 and 18, the Permittee shall comply with the applicable requirements of NESHAP Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6585(c) & 63.6590(a)(2)(iii), Subpart ZZZZ]

30.1. The Permittee shall meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR Part 60 Subpart IIII (under Condition 28), for compression ignition engines (EU IDs 11, 12, and 18) or 40 CFR Part 60 Subpart JJJJ (under Condition 29), for spark ignition engines (1 through 10). No further requirements apply for EU IDs 1 through 12 and 18 under 40 CFR 63.

[40 CFR 63.6590(c)(1), Subpart ZZZZ]

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subpart A – General Provisions & Subpart M – Asbestos

31. The Permittee shall comply with the requirements set forth in 40 CFR 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 CFR 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(1) & (2)(F), & 50.326(j)]
[40 CFR 61, Subparts A & M, and Appendix A]

40 CFR Part 82 Protection of Stratospheric Ozone

32. **Subpart F – Recycling and Emissions Reduction**. The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 CFR 82, Subpart F.

[18 AAC 50.040(d) & 50.326(j)]
[40 CFR 82, Subpart F]

33. **Subpart G – Significant New Alternatives**. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.174 (b) through (d) (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).

[18 AAC 50.040(d) & 50.326(j)]
[40 CFR 82.174(b) through (d), Subpart G]

34. **Subpart H – Halon Emission Reduction**. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (b) through (f) (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).

[18 AAC 50.040(d) & 50.326(j)]
[40 CFR 82.270(b) through (f), Subpart H]

NESHAP Applicability Determination Requirements

35. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (40 CFR 63) in accordance with the procedures described in 40 CFR 63.1(b).

35.1. If an owner or operator of a stationary source who is in the relevant source category determine that the source is not subject to a relevant standard or other requirement established under 40 CFR 63, the owner or operator must keep a record as specified in 40 CFR 63.1(b).

35.2. If a source becomes affected by an applicable subpart of 40 CFR 63, the owner or operator shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 CFR 63.6(c).

35.3. 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 and the Department of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 CFR 63.9(b).

[18 AAC 50.040(c)(1), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 63.1(b), 63.5(b)(4), 63.6(c)(1), & 63.10(b)(3), Subpart A]

Section 5. General Conditions

Standard Terms and Conditions

36. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

[18 AAC 50.326(j)(3), 50.345(a) & (e)]

37. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[18 AAC 50.326(j)(3), 50.345(a) & (f)]

38. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.326(j)(3), 50.345(a) & (g)]

39. Administration Fees. The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400 through 403.

[18 AAC 50.326(j)(1), 50.400, & 50.403]
[AS 37.10.052(b), 11/04; AS 46.14.240, 6/7/03]

40. Assessable Emissions. For each period from July 1 through the following June 30, the Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions, as determined by the Department under 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of the stationary source's

40.1. potential to emit of **793 tpy**; or

40.2. projected annual rate of emissions, in tpy, based upon actual annual emissions for the most recent calendar year, or another 12-month period approved in writing by the Department, when demonstrated by credible evidence or actual emissions, based upon the most representative information available from one or more of the following methods:

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

[18 AAC 50.040(j)(4), 50.035, 50.326(j)(1) & (3), 50.346(b)(1), 50.410, & 50.420]

41. Assessable Emission Estimates. The Permittee shall comply as follows:

41.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 40.2. Submit actual emissions estimates in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-i-submission-instructions/.

41.2. The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.

41.3. If no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in Condition 40.1.

[18 AAC 50.040(j)(4), 50.326(j)(1) & (3), 50.346(b)(1), 50.410, & 50.420]

42. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 13, 14, and 17:

42.1. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

42.2. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and

42.3. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.326(j)(3) & 50.346(b)(5)]

43. Dilution. The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

[18 AAC 50.045(a)]

44. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

[18 AAC 50.055(g)]

45. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.040(j)(4), 50.110, 50.326(j)(3), & 50.346(a)]
[40 CFR 71.6(a)(3)]

45.1. **Monitoring.** The Permittee shall monitor as follows:

a. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 45.

b. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

(i) after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 45; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 45.

45.2. **Recordkeeping**. The Permittee shall keep records of

a. the date, time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 45; and

d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

45.3. **Reporting**. The Permittee shall report as follows:

a. With each stationary source operating report under Condition 63, the Permittee shall include a brief summary report which must include the following for the period covered by the report:

(i) the number of complaints received;

(ii) the number of times the Permittee or the Department found corrective action necessary;

(iii) the number of times action was taken on a complaint within 24 hours; and

(iv) the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

b. The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

c. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 62.

46. Technology-Based Emission Standard. If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or nonroutine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard[18] listed in Condition 27, 28, 29, or 32 (refrigerants), the Permittee shall

46.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and

46.2. report in accordance with Condition 62.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken.

[18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 CFR 71.6(c)(6)]

Open Burning Requirements

47. Open Burning. If the Permittee conducts open burning at this stationary source, the Permittee shall comply with the requirements of 18 AAC 50.065 as follows:

47.1. Keep written records to demonstrate that the Permittee complies with the limitations in this condition and the requirements of 18 AAC 50.065. Upon request by the Department, submit copies of the records; and

47.2. Include this condition in the annual certification required under Condition 64.

[18 AAC 50.065, 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)]

[18] As defined in 18 AAC 50.990(106), the term *technology-based emission standard* means a best available control technology (BACT) standard; a lowest achievable emission rate (LAER) standard; a maximum achievable control technology (MACT) standard established under 40 CFR 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 6. General Source Testing and Monitoring Requirements

48. Requested Source Tests. In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a) & 50.345(a) & (k)]

49. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b)]

49.1. at a point or points that characterize the actual discharge into the ambient air; and

49.2. at the maximum rated burning or operating capacity of the emissions unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

50. Reference Test Methods. The Permittee shall use the following test methods when conducting source testing for compliance with this permit:

50.1. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 CFR 60.

[18 AAC 50.040(a) & 50.220(c)(1)(A)]
[40 CFR 60]

50.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 CFR 63.

[18 AAC 50.040(c) & 50.220(c)(1)(C)]
[40 CFR 63]

50.3. Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 11 to record data.

[18 AAC 50.030 & 50.220(c)(1)(D)]

50.4. Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 CFR 60, Appendix A.

[18 AAC 50.040(a)(3) & 50.220(c)(1)(E)]
[40 CFR 60, Appendix A]

50.5. Source testing for emissions of PM_{10} and $PM_{2.5}$ must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M, Methods 201 or 201A and 202.

[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]
[40 CFR 51, Appendix M]

50.6. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 CFR 63 Appendix A, Method 301.

[18 AAC 50.040(c)(24) & 50.220(c)(2)]
[40 CFR 63, Appendix A, Method 301]

51. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emissions unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3) & 50.990(102)]

52. Test Exemption. The Permittee is not required to comply with Conditions 54, 55, and 56 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.3) or Smoke/No Smoke Plan (Condition 2.4).

[18 AAC 50.345(a)]

53. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

54. Test Plans. Except as provided in Condition 52, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 48 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be performed without resubmitting the plan.

55. Test Notification. Except as provided in Condition 52, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

56. Test Reports. Except as provided in Condition 52, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the Source Test Report Outline, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in Condition 59. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (l) through (o)]

57. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 5 and 20.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

58. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

58.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and

58.2. Records of all monitoring required by this permit, and information about the monitoring including:

a. the date, place, and time of sampling or measurements;

b. the date(s) analyses were performed;

c. the company or entity that performed the analyses;

d. the analytical techniques or methods used;

e. the results of such analyses; and

f. the operating conditions as existing at the time of sampling or measurement.

[18 AAC 50.040(a)(1), (j)(4), & 50.326(j)]
[40 CFR 60.7(f), Subpart A, 40 CFR 71.6(a)(3)(ii)(A) & (B)]

Reporting Requirements

59. Certification. The Permittee shall certify any permit application, report, affirmation, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *"Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete."* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

59.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if the person providing the electronic signature

a. uses a security procedure, as defined in AS 09.80.190, that the Department has approved; and

b. accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.205, 50.326(j)(3), 50.345(a) & (j), & 50.346(b)(10)]

60. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall submit to the Department one certified copy of reports, compliance certifications, and/or other submittals required by this permit. The Permittee may submit the documents electronically or by hard copy.

60.1. Submit the certified copy of reports, compliance certifications, and/or other submittals in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-xvii-submission-instructions/.

[18 AAC 50.326(j)(3) & 50.346(b)(10)]

61. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the Federal Administrator.

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]
[40 CFR 71.5(a)(2) & 71.6(a)(3)]

62. Excess Emissions and Permit Deviation Reports. The Permittee shall report excess emissions and permit deviations as follows

62.1. **Excess Emissions Reporting.** Except as provided in Condition 45, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit, as follows:

a. In accordance with 18 AAC 50.240(c), as soon as possible, report

(i) excess emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable.

b. In accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology-based emission standard.

c. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 62.1.d.

d. Report all other excess emissions not described in Conditions 62.1.a, 62.1.b, and 62.1.c within 30 days after the end of the month during which the excess emissions occurred or as part of the next routine operating report in Condition 63 for excess emissions that occurred during the period covered by the report, whichever is sooner.

e. If requested by the Department, the Permittee shall provide a more detailed written report to follow up on an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), & 50.346(b)(2)]

62.2. **Permit Deviations Reporting.** For permit deviations that are not "excess emissions," as defined under 18 AAC 50.990:

a. Report according to the required deadline for failure to monitor, as specified in other applicable conditions of this permit (Conditions 4.3.b and 8.3.b).

b. Report all other permit deviations within 30 days after the end of the month during which the deviation occurred or as part of the next routine operating report in Condition 63 for permit deviations that occurred during the period covered by the report, whichever is sooner

[18 AAC 50.326(j)(3) & 50.346(b)(2)]

62.3. **Notification Form.** When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at the Division of Air Quality's Air Online Services (AOS) system webpage http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option, or, if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form that is used. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage found at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), & 50.346(b)(2) & (3)]

63. Operating Reports. During the life of this permit[19], the Permittee shall submit to the Department an operating report in accordance with Conditions 59 and 60 by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

63.1. The operating report must include all information required to be in operating reports by other conditions of this permit, for the period covered by the report.

63.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 63.1, the Permittee shall identify

a. the date of the excess emissions or permit deviation;

b. the equipment involved;

c. the permit condition affected;

d. a description of the excess emissions or permit deviation; and

e. any corrective action or preventive measures taken and the date(s) of such actions.

[19] *Life of this permit* is defined as the permit effective dates, including any periods of reporting obligations that extend beyond the permit effective dates. For example, if a permit expires prior to the end of a calendar year, there is still a reporting obligation to provide operating reports for the periods when the permit was in effect.

63.3. When excess emissions or permit deviation reports have already been submitted under Condition 62 during the period covered by the operating report, the Permittee shall either

a. include a copy of those excess emissions or permit deviation reports with the operating report; or

b. cite the date(s) of those reports.

63.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.3.e and 2.4.c, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report.

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

63.5. **Transition from expired to renewed permit**. For the first period of this renewed operating permit, also provide the previous permit's operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

[18 AAC 50.326(j)(3) & 50.346(b)(6)]
[40 CFR 71.6(a)(3)(iii)(A)]

64. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 60.

64.1. Certify the compliance status of the stationary source over the preceding calendar year consistent with the monitoring required by this permit, as follows:

a. identify each term or condition set forth in Section 3 through Section 9, that is the basis of the certification;

b. briefly describe each method used to determine the compliance status;

c. state whether compliance is intermittent or continuous; and

d. identify each deviation and take it into account in the compliance certification.

64.2. **Transition from expired to renewed permit**. For the first period of this renewed operating permit, also provide the previous permit's annual compliance certification report elements covering that partial period immediately preceding the effective date of this renewed permit.

64.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA Region 10, ATTN: Air Toxics and Enforcement Section, Mail Stop: 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 CFR 71.6(c)(5)]

65. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH_3, NO_X, PM_{10}, $PM_{2.5}$, SO_2, VOC and lead (Pb) and lead compounds, as follows:

65.1. **Annual Inventory**. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 250 tons per year (tpy) of NH_3, PM_{10}, $PM_{2.5}$ or VOC; or

b. 2,500 tpy of CO, NO_X or SO_2.

65.2. **Triennial Inventory**. Every third year by April 30 if the stationary source's potential to emit (except actual emissions for Pb) for the previous calendar year equals or exceeds:

a. For stationary sources located in Attainment and Unclassifiable Areas:

(i) 0.5 tpy of actual Pb, or

(ii) 1,000 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_X or VOC.

b. For stationary sources located in Nonattainment Areas:

(i) 0.5 tpy of actual Pb, or

(ii) 1,000 TPY of CO or, when located in a CO nonattainment area, 100 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_x, or VOC; or as specified in Conditions ??

(iv) 70 tpy of SO_2, NH_3, $PM_{2.5}$, NO_x, or VOC in $PM_{2.5}$ serious nonattainment; or

(v) 70 tpy of PM_{10} in PM_{10} serious nonattainment areas; or

(vi) 50 tpy of NO_x or VOC in O_3 serious nonattainment areas; or

(vii) 25 tpy of NO_x or VOC in O_3 severe nonattainment areas; or

(viii) 10 tpy of NO_x or VOC in O_3 extreme nonattainment areas.

65.3. For reporting under Condition 65.2, the Permittee shall report the annual emissions and the required data elements under Condition 65.4 every third year for the previous calendar year as scheduled by the EPA.[20]

65.4. For each emissions unit and the stationary source, include in the report the required data elements[21] contained within the form included in the Emission Inventory Instructions available at the Department's AOS system on the Point Source Emission Inventory webpage at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory.

65.5. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-xv-and-xvi-submission-instructions/.

[18 AAC 50.040(j)(4), 50.200, 50.326(j)(3), & 50.346(b)(8)]
[40 CFR 51.15, 51.30(a)(1) & (b)(1), & Appendix A to 40 CFR 51 Subpart A]

66. NSPS and NESHAP Reports. The Permittee shall comply with the following:

66.1. **Reports:** Except for previously submitted reports and federal reports and notices submitted through EPA's Central Data Exchange (CDX) and Compliance and Emissions Data Reporting Interface (CEDRI) online reporting system, attach to the operating report required by Condition 63 for the period covered by the report, a copy of any NSPS and NESHAP reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the online reports submitted during the reporting period.

66.2. **Waivers**: Upon request by the Department, provide a written copy of any EPA-granted alternative monitoring requirement, custom monitoring schedule or waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements. The Permittee shall keep a copy of each U.S. EPA-issued monitoring waiver or custom monitoring schedule with the permit.

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 CFR 60.13, 63.10(d) & (f) and 40 CFR 71.6(c)(6)]

[20] The calendar years for which reports are required are based on the triennial reporting schedule in 40 CFR 51.30(b)(1), which requires states to report emissions data to the EPA for inventory years 2011, 2014, 2017, 2020, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2020 is due April 30, 2021, triennial emission inventory report for 2023 is due April 30, 2024, etc.).

[21] The required data elements to be reported to the EPA are outlined in 40 CFR 51.15 and Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A.

Section 8. Permit Changes and Renewal

67. Permit Applications and Submittals. The Permittee shall comply with the following requirements for submitting application information to the EPA:

67.1. The Permittee shall provide a copy of each application for modification or renewal of this permit, including any compliance plan, or application addenda, at the time the application or addendum is submitted to the Department;

67.2. The information shall be submitted to the Part 70 Operating Permit Program, US EPA Region 10, Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

67.3. To the extent practicable, the Permittee shall provide to EPA applications in portable document format (pdf); MS Word format (.doc); or other computer-readable format compatible with EPA's national database management system; and

67.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7), 50.326(a) & (j)(3), and 50.346(b)(7)]
[40 CFR 71.10(d)(1)]

68. Emissions Trading. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(8)]

69. Off Permit Changes. The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 CFR Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

69.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;

69.2. Provide contemporaneous written notice to EPA and the Department of each such change, except for changes that qualify as insignificant under 18 AAC 50.326(d) through (i). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change;

69.3. The change shall not qualify for the shield under 40 CFR 71.6(f);

69.4. The Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(12)]

70. Operational Flexibility. The Permittee may make Section 502(b)(10)[22] changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions):

70.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.

70.2. For each such change, the written notification required above shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

70.3. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 70.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(13)]

71. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[23] an application under 18 AAC 50.326 no sooner than **<18 months before the expiration date of this permit>** and no later than **<6 months before the expiration date of this permit>**. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 CFR 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3), 50.326(c)(2) & (j)(2)]
[40 CFR 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

[22] As defined in 40 CFR 71.2, Section 502(b)(10) changes are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[23] Submit permit applications to the Department's Anchorage office. The current address is: Air Permit Intake Clerk, ADEC, 555 Cordova Street, Anchorage, AK 99501.

Section 9. Compliance Requirements

General Compliance Requirements

72. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

72.1. included and specifically identified in the permit; or

72.2. determined in writing in the permit to be inapplicable.

[18 AAC 50.326(j)(3) & 50.345(a) & (b)]

73. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

a. an enforcement action;

b. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

c. denial of an operating permit renewal application.

[18 AAC 50.040(j), 50.326(j) and 50.345(a) & (c)]

74. For applicable requirements with which the stationary source is in compliance, the Permittee shall continue to comply with such requirements.

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

75. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.326(j)(3) and 50.345(a) & (d)]

76. The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

76.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

76.2. have access to and copy any records required by the permit;

76.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

76.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.326(j)(3) and 50.345(a) & (h)]

Section 10. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the permit application, this section of the permit contains the requirements determined by the Department not to be applicable to the stationary source.

77. Nothing in this permit shall alter or affect the following:

77.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or

77.2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

[18 AAC 50.326(j)]
[40 CFR 71.6(f)(3)(i) & (ii)]

78. Table B identifies the emissions units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table B becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

[18 AAC 50.326(j)]
[40 CFR 71.6(f)(1)(ii)]

Table B - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Stationary source-wide	40 CFR 68 Subpart C	Stationary source does not use aqueous ammonia with a concentration of 20% or greater.

[18 AAC 50.326(j)][40 CFR 71.6(f)(1)(ii)]

Section 11. Visible Emissions Form

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions form Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form. For a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form." (https://www3.epa.gov/ttnemc01/methods/webinar8.pdf)

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where visible emissions observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Stationary Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g., charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Present, note in the Comments column whether the Plume is "attached" if water droplet plume forms prior to exiting stack, and "detached" if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate color of clouds and cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.
- Wet Bulb Temperature: can be measured using a sling psychrometer
- RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
- Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
- Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
- Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
- Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.
- Observer's Signature, Date: sign and date after performing VE observation.
- Observer's Affiliation: observer's employer.
- Certifying Organization, Certified By, Date: name of "smoke school," certifying observer, and date of most recent certification.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR PERMITS PROGRAM - VISIBLE EMISSIONS OBSERVATION FORM

Page No._____

Stationary Source Name		Type of Emission Unit			Observation Date		Start Time		End Time
					Sec	0	15	30	45	Comments
Emission Unit Location					Min 1					
City	State	Zip			2					
Phone # (Key Contact)		Stationary Source ID Number			3					
Process Equipment		Operating Mode			4					
Control Equipment		Operating Mode			5					
Describe Emission Point/Location					6					
Height above ground level	Height relative to observer	Clinometer Reading			7					
Distance From Observer		Direction From Observer			8					
Start End		Start	End							
Describe Emissions & Color					9					
Start		End								
Visible Water Vapor Present? If yes, determine approximate distance from the					10					
No Yes stack exit to w here the plume w as read										
					11					
Point in Plume at Which Opacity Was Determined										
Describe Plume Background		Background Color			12					
Start		Start								
End		End			13					
Sky Conditions:					14					
Start		End								
Wind Speed		Wind Direction From			15					
Start End		Start	End							
Ambient Temperature		Wet Bulb Temp		RH percent	16					
SOURCE LAYOUT SKETCH: 1Stack or Point Being Read 2 Wind Direction From					17					
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks										
					18					
					19					
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					Range of Opacity					
					Minimum			Maximum		
I have received a copy of these opacity observations					Print Observer's Name					
Print Name:					Observer's Signature					Date
Signature:										Observer's Affiliation:
Title		Date			Certifying Organization					
					Certified By:				Date	

Data Reduction:

Duration of Observation Period (minutes):	Duration Required by Permit (minutes):
Number of Observations:	Highest Six–Minute Average Opacity (%):
Number of Observations exceeding 20%:	
In compliance with six-minute opacity limit? (Yes or No)	Highest 18-Consecutive –Minute Average Opacity (%)(engines and turbines only)

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. Notification Form

Eklutna Generation Station	AQ1086TVP02
Stationary Source (Facility) Name	**Air Quality Permit Number**
Matanuska Electric Association, Inc.	
Company Name	**Date**

When did you discover the Excess Emissions/Permit Deviation?

Date: _____ / _____ / _____ Time: _____ :/ _____

When did the event/deviation occur?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (please use 24-hr clock)

End Date _____ / _____ / _____ Time: _____ : _____ (please use 24-hr clock)

What was the duration of the event/deviation? ____ : _____ (hrs:min) or _____ days

(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for Notification: (please check only 1 box and go to the corresponding section)

☐ Excess Emissions – Complete Section 1 and Certify

Note: All "excess emissions" are also "permit deviations." However, use only Section 1 for events that involve excess emissions

☐ Deviation from Permit Condition – Complete Section 2 and Certify

Note: Use only Section 2 for permit deviations that do not involve excess emissions.

☐ Deviation from COBC[24], CO[25], or Settlement Agreement - Complete Section 2 and Certify

[24] Compliance Order By Consent

[25] Compliance Order

Section 1. Excess Emissions

(a) **Was the exceedance**: ☐ Intermittent or ☐ Continuous

(b) **Cause of Event** (Check one that applies. Complete a separate form for each event, as applicable.):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

(c) **Description**

Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance. Attach supporting information if necessary

(d) **Emissions Units Involved**:

Identify the emissions unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) **Type of Incident** (please check all that apply and provide the value requested):

☐ Opacity _____ % ☐ Venting _____ gas/scf ☐ Control Equipment Down

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) **Corrective Actions:**

Describe actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence. Attach supporting information if necessary

(g) **Unavoidable Emissions**:

Do you intend to assert that these excess emissions were unavoidable? ☐ Yes ☐ No

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ Yes ☐ No

Certify Report (go to end of form.)

Section 2. Permit Deviations

(a) **Permit Deviation Type** (Check all boxes that apply per event. Complete a separate form for each event, as applicable):

☐ Emissions Unit-Specific Requirements

☐ Stationary Source-Wide Specific Requirements

☐ Monitoring/Recordkeeping/Reporting Requirements

☐ General Source Test Requirements

☐ Compliance Certification Requirements

☐ Standard/Generally Applicable Requirements

☐ Insignificant Emissions Unit Requirements

☐ Other: _____

(b) **Emissions Unit Involved**:

Identify the emissions unit involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the deviation.

EU ID	EU Name	Permit Condition/ Potential Deviation

(c) **Description of Potential Deviation:**
Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation. Attach supporting information if necessary.

(d) **Corrective Actions**:
Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence. Attach supporting information if necessary.

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 59.)*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

If submitted online, report must be submitted by an authorized E-signer for the stationary source (according to Condition 59).

[18 AAC 50.346(b)(3)]

Alaska Department of Environmental Conservation
Air Permits Program

Public Comment - November 10, 2021
Matanuska Electric Association, Inc.
Eklutna Generation Station

STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ1086TVP02

Prepared by Kathie Mulkey
ADEC AQ/APP (Anchorage)

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit AQ1086TVP02.

STATIONARY SOURCE IDENTIFICATION

Section **1** of Operating Permit AQ1086TVP02 contains information on the stationary source as provided in the Title V permit application.

The Eklutna Generation Station (EGS) is a 171-megawatt electric power plant that provides electricity to homes and businesses from Eagle River to the South Denali Princess Lodge.

The EGS is owned and operated by the Permittee, Matanuska Electric Association, Inc**.** (MEA). The SIC code for this stationary source is 4911 – Electric services.

EMISSIONS UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 CFR 71.5(c)(3).

The emissions units at the EGS that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit AQ1086TVP02 and include ten dual fuel generator engines, two diesel black start generators, two dual fuel auxiliary boilers, a natural gas heater, and a diesel firewater pump. The generator engines are equipped with a selective catalytic reduction and catalytic oxidation emissions control system to reduce NOx, CO, and VOC emissions.

Table A of Operating Permit AQ1086TVP02 contains information on the emissions units (EUs) regulated by this permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the emissions unit rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE as provided in the application for the Eklutna Generation Station, is shown in Table C.

Table C - Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO_X	CO	PM_{10}	SO_2	VOC	CO_2e	HAP	Total
PTE	188.1	207.3	220.9	21.0	155.8	720,229	15.8	793.1
Assessable PTE	188	207	221	21	156	--	--	793

Notes:

1. CO_2e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.
2. Total PTE and total assessable PTE shown in the table do not include CO2e and HAP.

[1] *Potential to Emit* or *PTE* means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the 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. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(23).

The assessable PTE listed under Condition 40.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs), for which the stationary source has the potential to emit quantities of 10 tpy or greater. The emissions listed in Table C are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

For criteria pollutants and GHGs, emissions are as provided in the application for Operating Permit AQ1086TVP02 and are based on the owner requested operating limits from Minor Permit AQ1086MSS03. Emission factors are from manufacturer data and AP-42. The highest PTE for a single HAP (formaldehyde) is less than 10 tpy, therefore the stationary source is not a major source of HAP. HAP emissions are a subset of either VOC emissions or PM_{10} emissions and are excluded from the assessable emissions total to avoid double counting.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[2] must obtain a Title V permit consistent with 40 CFR Part 71, as adopted by reference in 18 AAC 50.040.

Except for sources exempted or deferred by AS 46.14.120(e) or (f), AS 46.14.130(b) lists three categories of sources that require an operating permit:

- A major source;
- A stationary source, including an area source, subject to federal new source performance standards (NSPS) under Section 111 of the Clean Air Act or national emission standards for hazardous air pollutants (NESHAP) under Section 112 of the Clean Air Act; or
- Another stationary source designated by the Federal Administrator by regulation.

The Permittee is required to obtain an operating permit for the **Eklutna Generation Station** as specified under 18 AAC 50.326(a) and 40 CFR 71.3(a) because the stationary source is:

- A major source, as defined in Section 302 of the Clean Air Act that directly emits, or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation;
- A source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Act (NSPS) not exempted or deferred under AS 46.14.120(e) or (f); and
- A source, including an area source, subject to a standard or other requirement under Section 112 of the Act (NESHAP) not exempted or deferred under AS 46.14.120(e) or (f).

AIR QUALITY PERMITS

Permits-to-Operate

No previous air quality control permit-to-operate exists for this stationary source.

Title I (Construction and Minor) Permits

AQ1086MSS01: The Department issued Minor Permit AQ1086MSS01 to this stationary source on June 17, 2011. The project was classified under 18 AAC 50.502(c)(1) and 18 AAC 50.508(5).

[2] *Title V source* means a stationary source classified as needing a permit under AS 46.14.130(b)[ref. 18 AAC 50.990(111)].

The permit established owner requested limits to avoid classification as a PSD major stationary source for NOx and CO.

AQ1086MSS02: The Department issued Minor Permit AQ1086MSS02 to this stationary source on December 31, 2013. The permit revised the emissions unit inventory and established additional owner requested limits. This permit rescinded and replaced Minor Permit AQ1086MSS01.

AQ1086MSS03: The Department issued Minor Permit AQ1086MSS03 to this stationary source on November 6, 2015. The permit rescinded and replaced Minor Permit AQ1086MSS02 while carrying forward the revised and applicable conditions.

Title V Operating Permit Application, Revisions and Renewal History

AQ1086TVP01: The owner or operator submitted an application for an initial Title V operating permit on October 28, 2015. The application was amended on April 5, 2016 because the federal requirements applicable to EU IDs 13 and 14 were inaccurate. Both EUs meet the definition of gas-fired boiler in 40 CFR 63.11237 and are therefore not subject to 40 CFR 63 Subpart JJJJJJ.

The owner or operator submitted an application for a renewal Title V operating permit on December 14, 2020.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 2014 and has generally been in compliance with active Title I permits and Operating Permit AQ1086TVP01. However, in the full compliance reports dated December 22, 2017 and September 11, 2019, MEA was found to be out of compliance with Conditions 15 and 72 of Operating Permit AQ1086TVP01. MEA corrected the non-compliance by repairing the ammonia dosing unit control system. Facility operating reports and annual compliance certification reports between 2017 and 2020 were all in compliance with permit requirements.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 CFR Part 71.2 defines "applicable requirement" to include the terms and conditions of any preconstruction permit issued under rules approved in Alaska's State Implementation Plan (SIP).

Alaska's SIP includes the following types of preconstruction permits:

- Permit to operate issued on or before January 17, 1997 (these permits cover both construction and operations);
- Construction permits issued on or after January 18, 1997; and
- Minor permits issued on or after October 1, 2004.

Preconstruction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions and conditions that quote or paraphrase requirements in regulation. These requirements include, but are not limited to, each emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of issuance of Operating Permit AQ1086TVP02.

Table D below lists the requirements carried into Operating Permit AQ1086TVP02 to ensure compliance with the preconstruction permit requirements.

Table D - Comparison of Minor Permit AQ1086MSS03 Conditions to Operating Permit AQ1086TVP02 Conditions

Permit AQ1086MSS03 Condition No.	Description of Requirement	Permit AQ1086TVP02 Condition No.	How Condition was Revised
Section 1	Emissions unit inventory	Section 2	The rating of EU 17 was revised from 7.0 MMBtu/hr to 8.3 MMBtu/hr based on notification from MEA.
5	PSD avoidance – operating hour limit for EU IDs 1-10	13	Not revised.
6	PSD avoidance – operating hour limit for EU ID 11	14	Not revised.
7	PSD avoidance – operating hour limit for EU IDs 13 & 14	15	Not revised.
8	PSD avoidance – control equipment requirements	16	Not revised
9	HAP major avoidance – formaldehyde emission limit for EU IDs 1-10	17	Not revised.
10	State Emission Standards – Visible Emissions	1	Equivalent conditions represented in the Title V format.
11	State Emission Standards – Particulate Matter	5	Equivalent conditions represented in the Title V format.
12	State Emission Standards – Sulfur Compounds	10	Equivalent conditions represented in the Title V format.
13	NO_2 Ambient Air Provisions	18	Not revised.
14	NO_2 & PM_{10} Ambient Air Provisions	19	Not revised.
15	18 AAC 50.502(c)(1)(C) avoidance – fuel sulfur requirements	12	Not revised.

Notes:

[1] This table does not include all standard and general conditions.

NON-APPLICABLE REQUIREMENTS

This section discusses standard conditions that have not been included in the permit and other requirements that are not included for specific reasons.

- **40 CFR 64 – Compliance Assurance Monitoring (CAM)**
    - EU IDs 1 through 10 are required to have SCR/CATOX controls installed for NOx, CO, and VOC emissions. Operating parameters of the controls are monitored continuously, therefore CAM requirements are not applicable.
    - Other than EU IDs 1 through 10, emissions units at the stationary source do not use control devices to achieve compliance with any emission limit or standard so CAM requirements are not applicable.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 71, as specified in 18 AAC 50.040(j), to establish operating permit regulations. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 CFR 70. This Statement of Basis, required under 40 CFR 71.11(b), provides the legal and factual basis for each condition of Operating Permit AQ1086TVP02. Additionally, and as required by 40 CFR 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1 through 4 and 9, Visible Emissions Standard and MR&R

Legal Basis: These conditions require compliance with the visible emissions standard in 18 AAC 50.055(a).

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 14, 17, and 18 are fuel-burning equipment.

U.S. EPA approved the addition of these standards to the SIP, as noted in 40 CFR 52.70. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 2 through 4 (liquid fuel-burning equipment) and Condition 9 (dual fuel-burning equipment) of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares. The Department has modified these conditions as follows:

- Added the word ‘exclusively’ when referencing ULSD because EU IDs 1 through 10 use a small amount of diesel when operating on gas.

Beyond as noted above, the Department has determined that the standard conditions adequately meet the requirements of 40 CFR 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions, as modified, meet the requirements of 40 CFR 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations of the emissions unit exhaust, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state emission standards for visible emissions.

These conditions detail a stepwise process for monitoring compliance with the state visible emissions standard for liquid fuel-burning equipment. Equipment types covered by these conditions are stationary internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from EUs either through

maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of visible emissions for gas fuel-burning EUs is waived, i.e., no Method 9 or smoke/no smoke observations will be required. The Department has found that natural gas fuel-burning equipment inherently has negligible visible emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fuel-Fired Burning Equipment:

Monitoring - The emissions unit exhaust must be observed by either Method 9 or the Smoke/No Smoke Plan as detailed in Condition 2. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations.

EU ID 11 does not qualify as insignificant per 18 AAC 50.326(d)(1) because it is subject to operational limits established in a Title I permit and standards established under NSPS Subpart IIII but has emissions below the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived VE monitoring and EU ID 11 is only subject to compliance certification requirements in accordance with Department Policy and Procedure No. 04.02.103, Topic #3, dated June 21, 2012.

EU IDs 12 and 18 are insignificant based on actual emissions. As long as actual emissions are below the significant emissions thresholds in 18 AAC 50.326(e),[3] VE monitoring is waived and EU IDs 12 and 18 are only subject to compliance certification requirements in accordance with Department Policy and Procedure No. 04.02.103, Topic #3, dated June 21, 2012. The Permittee must annually certify compliance under Condition 64 with the visible emissions standard based on reasonable inquiry.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report emissions in excess of the state visible emissions standard and deviations from permit conditions. The Permittee is required to include in the operating report a statement of which visible emissions plan was used for each emissions unit and copies of the results of all visible emission observations.

Dual Fuel-Burning Equipment:

For EU ID(s) 1 through 10, 13, and 14, when not operating exclusively on diesel, monitoring consists of a statement in each operating report that the emissions units fired gas as the primary fuel during the period covered by the report. When any of these emissions units operates exclusively on ULSD for more than 400 hours in a calendar year, monitoring as detailed in Condition 9 is required for that emissions unit in accordance with Department

[3] Annual operation equal to or greater than 234 hours for each of EU IDs 12 and 18 is equivalent to the worst-case significant emissions threshold.

Policy and Procedure No. 04.02.103, Topic # 2, dated June 21, 2012. When any of these units operates exclusively on ULSD for less than 400 hours in a calendar year, monitoring for that unit consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Conditions 5 through 9, Particulate Matter (PM) Standard and MR&R

Legal Basis: These conditions require compliance with the applicable requirement in 18 AAC 50.055(b).

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 14, 17, and 18 are fuel-burning equipment.

The PM standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: Condition 5 prohibits emissions in excess of the applicable state PM standard. MR&R requirements are listed in Conditions 6 through 8 of the permit. These conditions have been adopted into regulation as SPC IX. The Department has modified these conditions as follows:

- Added the word 'exclusively' when referencing ULSD because EU IDs 1 through 10 use a small amount of diesel when operating on gas.
- SPC IX for Dual Fuel-Burning Equipment points to the MR&R for Liquid Fuel-Burning Boilers and Heaters. However, because this stationary source has no boilers or heaters that burn liquid fuel exclusively, the MR&R for boilers and heaters in SPC IX is included under Condition 9.3.a.

Beyond as noted above, the Department has determined that the standard conditions adequately meet the requirements of 40 CFR 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meet the requirements of 40 CFR 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations which can be supplemented by other means (e.g., a defined operation and maintenance program) that the stationary source is in continuous compliance with the state emission standards for particulate matter.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for particulate matter is waived, i.e., no source testing will be required. The Department has found that natural gas-fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fuel-Burning Equipment:

Monitoring – The Permittee is required to either take corrective action or conduct PM source testing if opacity threshold values are exceeded. For liquid fuel-burning engines and turbines, the Department set opacity threshold values of 15 percent for stack diameters less than 18 inches and 20 percent for stack diameters equal to or greater than 18 inches. These opacity thresholds are based on a study conducted by the Department in an effort to establish a correlation between opacity and PM. The data was collected from diesel engines of various stack sizes.

The results of the correlation study predict that a 20 percent opacity corresponds to a little less than the PM limit for an 18-inch stack. There may be engines that exceed the thresholds, but the intent of the standard condition is not to guarantee that each engine that might exceed the PM standard will be tested. The Department expects few, if any, engines to be tested under this condition. What the Department does expect is that with the adopted condition in place, operators that find an opacity above or near the testing threshold will take corrective action necessary to reduce PM emissions. This would achieve the desired environmental outcome without the added cost of testing. The Department expects this to be the case with both thresholds.

The method is premised on the fact that a five percent difference in opacity is distinguishable. The conditions mean that if opacity readings as measured using Method 9 – with all its limitations – exceed the thresholds, the Permittee must either take corrective action or conduct a PM source test. The compliance conditions for PM do not draw a legal conclusion about whether the method shows compliance with the visible emissions standard.

Recordkeeping - The Permittee is required to record the results of PM source tests and visible emissions observations conducted during the source test.

Reporting - The Permittee is required to report incidents when emissions in excess of the opacity threshold are observed and the results of PM source tests. The Permittee is also required to include copies of the results of all visible emission observations taken during PM source testing in the operating report.

Dual Fuel-Burning Equipment:

For EU ID(s) 1 through 10, 13, and 14, when not operating exclusively on diesel, monitoring consists of a statement in each operating report that the emissions units fired gas as the primary fuel during the period covered by the report. When any of these emissions units operates exclusively on ULSD for more than 400 hours in a calendar year, monitoring as detailed in Condition 9 is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2, dated June 21, 2012. When any of these emissions units operates exclusively on ULSD for 400 hours or less in a calendar year, monitoring for that source consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Condition 10, Sulfur Compound Emissions Standard and MR&R

Legal Basis: This condition requires compliance with the sulfur compound emission standard under 18 AAC 50.055(c).

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 through 14, 17, and 18 are fuel-burning equipment.

The sulfur compound standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Permittee may not cause or allow the affected equipment to violate the applicable standard. Sulfur dioxide comes from the sulfur in the fuel (e.g., coal, natural gas, fuel oils).

The Permittee must comply with the sulfur content limits and MR&R requirements in Condition 12, which is from Minor Permit AQ1086MSS03 and includes requirements for liquid and gaseous fuels. Compliance with the fuel sulfur limits of Condition 12 will ensure compliance with the 500-ppm SO_2 emission limit of Condition 10. The Department concludes that the condition as modified meets the requirements of 40 CFR 71.6(a)(3) and intent of SPC XI MR&R.

Conditions 12 through 19, Preconstruction Permit Requirements

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP approved permits to operate issued on or before January 17, 1997, and operating permits issued between January 18, 1997 and September 30, 2004 and with all stationary source-specific requirements in EPA PSD permits, SIP approved construction permits, SIP approved minor permits, and owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT) limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally approved SIP or approved operating permit program.

Factual Basis: Condition 12 incorporates a fuel sulfur limit in Minor Permit AQ1086MSS03 to avoid minor permitting under 18 AAC 50.502(c)(1)(c). Specifically, the requirement to limit the sulfur content of diesel fuel to no greater than 15 ppmw. It also limits the sulfur content of the natural gas burned to no more than 20 ppmv H_2S. The permit incorporates associated monitoring, recordkeeping, and reporting requirements.

Conditions 13 through 16 incorporate owner requested limits in AQ1086MSS03 to avoid classification as a PSD major source. Specifically, Condition 13 is applicable to EU IDs 1 through 10 and limits combined hours of operation to no more than 1,680 hours per rolling 12-month period. Condition 14 is applicable to EU ID 11 and limits the total hours of operation to no more than 500 hours per year. Condition 15 is applicable to EU IDs 13 and 14 and limits the combined hours of operation to no more than 1,000 hours per rolling 12-month period. Condition 16 is applicable to EU IDs 1 through 10 and requires the Permittee to operate and maintain SCR/CATOX control equipment downstream of each engine. The permit incorporates associated monitoring, recordkeeping, and reporting requirements.

Condition 17 incorporates a formaldehyde limit in AQ1086MSS03 to avoid classification as a HAP major source. The condition is applicable to EU IDs 1 through 10 and requires the

operation of the SCR/CATOX control equipment described in Condition 16, which also contains monitoring, recordkeeping, and reporting requirements.

Conditions 18 and 19 incorporate ambient air quality protection provisions in AQ1086MSS03. Specifically, Condition 18 is applicable to EU IDs 1 through 10 and requires a stack release height of 30.0 meters or more above grade. Condition 19 is applicable to EU IDs 12 and 18 and limits the combined hours of operation to 1,000 hours per rolling 12-month period. The permit incorporates associated monitoring, recordkeeping, and reporting requirements.

Condition 20, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet state emission standards in 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. 18 AAC 50.055 is contained in the federally approved SIP. The Department also added permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Condition requires insignificant emissions units to comply with the state emission standards for visible emissions, particulate matter emissions, and sulfur-compound emissions. Insignificant emissions units are not generally listed in operating permits unless specific monitoring, recordkeeping, and reporting are necessary to ensure compliance with the state emission standards. However, the Permittee may not cause or allow insignificant emissions units at the stationary source to violate these standards whether or not they are listed in the operating permit.

The Department finds that the insignificant emissions units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 20.4.a requires certification that the insignificant emissions units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution, based on reasonable inquiry.

The Department used the language in SPC V, adopted by reference under 18 AAC 50.346(b)(4), for the permit condition.

Conditions 21 through 26, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 CFR 70 Appendix A). The Department is the permitting authority for the Part 70 program. As the permitting authority, the Department requires compliance with all permit conditions. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standard (NSPS) program, NSPS requirements are included in the definition for "applicable requirement" under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 13 and 14 are subject to NSPS Subpart Dc; EU IDs 11, 12, and 18 are subject to NSPS Subpart IIII; and EU IDs 1 through 10 are subject to NSPS Subpart JJJJ. These units are therefore subject to Subpart A.

Conditions 21.1 through 21.3 - The Permittee is subject to these requirements in the event of a new NSPS affected facility[4] or in the event of a modification or reconstruction of an existing facility[5] into an affected facility.

Condition 21.4 - The Permittee is subject to the notification requirement of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c).

Condition 21.5 – The Permittee is subject to the notification requirement of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1).

Condition 21.6 - The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 CFR 60.15) apply in the event that 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.

Condition 22 - The requirements in 40 CFR 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to all NSPS affected facilities subject to Subpart A.

Condition 23 - The Permittee is subject to these performance test requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility or at such other times as may be required by EPA.

Condition 25 – states that any credible evidence may be used to demonstrate compliance or establish violations of relevant NSPS standards.

Condition 26 - Concealment of emissions prohibitions in 40 CFR 60.12 are applicable to EU IDs 1 through 14 and 18.

Factual Basis: Subpart A contains general requirements applicable to all affected facilities (emissions units) subject to NSPS. In general, the intent of NSPS is to provide technology-based emission control standards for new, modified and reconstructed affected facilities.

Condition 27, NSPS Subpart Dc Requirements

Legal Basis: NSPS Subpart Dc applies to steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989 and have maximum design heat input capacities of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). EU IDs 13 and 14 were constructed in June 2013, and have heat input capacities of 15.75 MMBtu/hr, and are therefore subject to Subpart Dc.

Factual Basis: The condition requires the Permittee to comply with the Subpart Dc fuel monitoring requirements. The Permittee submitted the initial notification for EU IDs 13 and 14 on January 27, 2016. EU IDs 13 and 14 are dual fuel-fired and have fuel sulfur content limits carried over from Minor Permit AQ1086MSS03. Compliance with the limits in Condition 12 will ensure compliance with the NSPS Subpart Dc SO_2 limits. The more restrictive requirement of Condition 58 will ensure compliance with the records retention

[4] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2, effective 7/1/07.

[5] *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, as defined in 40 CFR 60.2, effective 7/1/07.

requirement. EU IDs 13 and 14 are not subject to the PM standard in 40 CFR 60.43c because each unit's maximum design heat input is less than 30 MMBtu/hr.

Monitoring – The condition describes monitoring required in the event that the owner seeks to demonstrate compliance with the SO_2 standard based on fuel supplier certification under 40 CFR 60.46c(f).

Condition 28, NSPS Subpart IIII Requirements

Legal Basis: NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 for non-fire pump engines and after July 1, 2006 for certified fire pump engines. EU IDs 11, 12, and 18 are emergency CI ICEs subject to the requirements of Subpart IIII per 40 CFR 60.4200(a)(2).

Factual Basis: These conditions incorporate the Subpart IIII emissions standards and associated MR&R applicable to emergency stationary CI ICE with a rating less than 2,237 kW (3,000 hp) and a displacement less than 10 liters per cylinder. The Permittee may not cause or allow EU IDs 11, 12, and 18 to violate these standards. The Permittee has demonstrated compliance with the emission standards by purchasing certified engines. These conditions also contain MR&R required in NSPS Subpart IIII. The Permittee is required to operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee is not required to submit an initial notification per 40 CFR 60.4214(b). Conditions 28.11 and 28.12 are added to fill gaps in reporting requirements under this Subpart.

Condition 29, NSPS Subpart JJJJ Requirements

Legal Basis: NSPS Subpart JJJJ applies to stationary spark ignition (SI) ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 hp. EU IDs 1 through 10 are dual fuel Generator Engines, each rated at 1.71 MW (2,293 hp), constructed in 2012 and are subject to the requirements of Subpart JJJJ per 40 CFR 60.4230(a)(4)(i).

Factual Basis: These conditions incorporate the Subpart JJJJ emissions standards applicable to EU IDs 1 through 10. The dual fuel generator engines are spark ignition, non-emergency, and each rated at 1.71 MW (2,293 hp). The generator engines must meet the federal emission standards in Table 1 of Subpart JJJJ. The emissions standards for these generator engines are listed below:

- NOx - 1.0 grams per horsepower hour (g/hp-hr),
- CO - 2.0 g/hp-hr, and
- VOC - 0.7 g/hp-hr

The Permittee may not cause or allow EU IDs 1 through 10 to violate these standards. These conditions also provide MR&R specifically required by the Subpart. The Permittee is required to conduct a performance test every 8,760 hours[6] or 3 years, whichever comes first,

[6] The federal rule says '8,760 hours'. The Department interprets this as '8,760 operating hours'.

thereafter to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4244, Table 2 to Subpart JJJJ. Condition 29.7 was added to fill a gap in reporting requirements.

Condition 30, NESHAP Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of any existing, new, or reconstructed stationary reciprocating internal combustion engines (RICE), whose construction commenced before June 12, 2006, located at a major or area source of HAP emissions, excluding stationary RICE units being tested at a stationary RICE test cell/stand. The **Eklutna Generation Station** is an area source of HAP emissions accessible by the Federal Aid Highway System (FAHS). EU IDs 1 through 12 and 18 are subject to the provisions of NESHAP Subpart ZZZZ under 40 CFR 63.6590(a)(2)(iii) for new RICE whose construction commence on or after June 12, 2006.

Factual Basis: These conditions incorporate the current (as amended through December 4, 2020) NESHAP Subpart ZZZZ requirements applicable to the existing stationary RICE, EU IDs 1 through 12 and 18. The **Eklutna Generation Station** is an area source of HAP emissions that is subject to the provisions of 40 CFR 63.6590(a)(2)(iii) for new RICE whose construction commence on or after June 12, 2006. However, for EU IDs 1 through 10, per 40 CFR 63.6590(c), compliance with the requirements of Subpart ZZZZ for new stationary RICE is achieved by meeting the requirements of 40 CFR Subpart JJJJ (Condition 29) and no further requirements apply under NESHAP Subparts A and ZZZZ. Additionally, for EU IDs 11, 12, and 18, per 40 CFR 63.6690(c), compliance with the requirements of Subpart ZZZZ is achieved by meeting the requirements of 40 CFR Subpart IIII (Condition 28) and no further requirements apply under NESHAP Subparts A and ZZZZ.

Condition 31, Asbestos NESHAP

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the “applicable requirement” definition under 40 CFR 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 CFR 61, Subpart M and associated general provisions under Subpart A, as adopted by reference under 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation. ADEC received delegation for 40 CFR 61.145 and 61.154 of Subpart M (Asbestos), along with other sections and appendices which are referenced in 61.145, as 61.145 applies to sources required to obtain an operating permit under Alaska's regulations. ADEC has not received delegation for Subpart M for sources not required to obtain an operating permit under Alaska's regulations.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Conditions 32 through 34, Protection of Stratospheric Ozone, 40 CFR 82

Legal Basis: The requirements of 40 CFR 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 CFR 71.2.

Condition 32 requires compliance with the applicable requirements in 40 CFR 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants in 40 CFR 82, Subpart F.

Conditions 33 and 34 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 33 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 34 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these requirements.

Factual Basis: These conditions incorporate applicable 40 CFR 82 requirements. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

Condition 35, NESHAP Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAP and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major stationary source based on hazardous air pollutant (HAP) emissions. This condition requires the Permittee to notify the Department and Administrator if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 CFR Part 63 and to keep records of applicability determinations and make those records available to the Department.

Conditions 36 through 38, Standard Terms and Conditions

Legal Basis: These are standard conditions required for all operating permits under 18 AAC 50.345(a) and (e) through (g). As stated in 18 AAC 50.326(j)(3), the standard permit conditions of 18 AAC 50.345 replace the provisions of 40 CFR 71.6(a)(5) through (7).

Factual Basis: These are standard conditions that apply to all permits.

Condition 39, Administration Fees

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.400 through 50.403. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. The regulations in

18 AAC 50.400 through 50.403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 40 and 41, Emission Fees

Legal Basis: These conditions require compliance with the applicable fee requirements in 18 AAC 50.410 through 50.420. The regulations specify the time period for the assessable emissions and the methods the Permittee may use to calculate assessable emissions. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. SPC I requires the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date. The assessable emissions are the lessor of the stationary source's potential or projected emissions of each air pollutant at 10 tons per year or greater (AS 46.14.250(h)(1)(A)).

SPC I also allows the Permittee to recalculate the stationary source's assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emissions based on actual emissions must be for the most recent previous calendar year. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match.

Condition 42, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 CFR 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all units.

The Department adopted this condition under 18 AAC 50.346(b) as SPC VI pursuant to AS 46.14.010(e). Records kept in accordance with Condition 42.2 for units subject to good air pollution control practice need to be maintained for 5 years in accordance with Condition 58 even if a unit is no longer subject to this condition.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that an adequate maintenance schedule is not maintained.

Condition 43, Dilution

Legal Basis: This condition reiterates 18 AAC 50.045(a), which prohibits the Permittee from using dilution as an emission control strategy. 18 AAC 50.045 is included in the SIP approved by EPA and therefore an applicable requirement, per 40 CFR 71.2.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 44, Stack Injection

Legal Basis: This condition reiterates 18 AAC 50.055(g), which prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e., disposing of material by injecting it into a stack). 18 AAC 50.055 is included in the SIP approved by EPA and therefore an applicable requirement, per 40 CFR 71.2.

Stack injection requirements apply to emissions unit stacks at a stationary source that are constructed or modified after November 1, 1982.

Factual Basis: No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the unit or stack would need to be modified to accommodate stack injection.

Condition 45, Air Pollution Prohibited

Legal Basis: This condition requires compliance with 18 AAC 50.110. 18 AAC 50.110 is included in the SIP approved by EPA and therefore an applicable requirement, per 40 CFR 71.2. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. The Department also included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC II for the permit. This condition spells out how to monitor, record and report prohibited air pollution. While the other permit conditions and emissions limitations should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints, and to submit copies of these records upon request of the Department.

Condition 46, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if unavoidable emergency, malfunction, or non-routine repair activities cause an exceedance of

any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235. Technology-based emission standard requirements apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 62. Excess emission reporting under Condition 62 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 62.

Condition 47, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. 18 AAC 50.065 is included in the SIP approved by EPA and therefore an applicable requirement per 40 CFR 71.2. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website http://dec.alaska.gov/air/air-permit/open-burn-info. Condition 47.1 requires the Permittee to keep records to demonstrate compliance with the standards for conducting open burning.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 64.

Condition 48, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. This requirement is under 18 AAC 50.220(a) and 50.345(k) which are included in the SIP approved by EPA.

Factual Basis: This condition applies because this is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a). Compliance is demonstrated through the submission of the required source test plan and report.

Conditions 49 through 51, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 49 and 51 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 50 specifies source test methods, as required by 40 CFR 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 49 through 51.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit.

Condition 52, Test Exemption

Legal Basis: This condition incorporates the source test exemption in 18 AAC 50.345(a) regarding visible emissions observations. 18 AAC 50.345(a) is included in the SIP approved by EPA.

Factual Basis: As provided in 18 AAC 50.345(a), the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 53 through 56, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: Conditions 54 through 56 require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 53 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o) constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 50.345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

Factual Basis: These standard conditions supplement specific monitoring requirements stated elsewhere in this permit.

Condition 57, Particulate Matter (PM) Calculations

Legal Basis: This condition requires the Permittee to reduce particulate matter data in accordance with 18 AAC 50.220(f), which is included in the SIP approved by EPA. It applies when the Permittee tests for compliance with the PM standards in 18 AAC 50.050 or 50.055.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 58, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 CFR 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4). It also incorporates the general NSPS recordkeeping requirement under 40 CFR 60.7(f), which the Department adopted by reference under 18 AAC 50.040(a)(1).

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide evidence of compliance with this requirement.

40 CFR 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part while 40 CFR 71.6(a)(3)(ii) requires at least five years of records retention. The five-year records retention requirement in Condition 58 satisfies both 40 CFR 60.7(f) and 40 CFR 71.6(a)(3)(ii).

Condition 59, Certification

Legal Basis: All operating permits must contain a requirement to certify permit applications, reports, affirmations, or compliance certification, per 18 AAC 50.345(j). The requirement is a part of the SIP approved by EPA.

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). 18 AAC 50.345(j) allows the excess emissions reports to be certified with the operating report. However, the Department reminds the Permittee that excess emissions reports must be submitted according to the applicable deadline given in Condition 62 and must not be withheld from the Department until the deadline for submittal of an operating report. This condition supplements the reporting requirements of this permit. The certification statement through electronic signature and options for submittal provide paperless options for reporting without compelling Permittees to any specific means of submission.

Condition 60, Submittals

Legal Basis: This condition applies because the Permittee is required to send reports to the Department and supplements the standard reporting and notification requirements of this permit.

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. This condition lists the Department's appropriate address for reports and written notices. This condition states that the Department requires one certified copy of submitted reports (except as otherwise required by the Department or other conditions of the permit) and provides an allowance for either electronic or hard copy document submittals. The condition also directs the Permittee to refer to the submission instructions on the Department's Standard Permit Conditions webpage for additional information regarding document submittals (e.g., the appropriate Department address).

Condition 61, Information Requests

Legal Basis: All operating permits must include a condition that requires the Permittee to furnish certain information upon request, per 18 AAC 50.345(i). The requirement is part of the SIP approved by EPA.

Factual Basis: The requirement in 18 AAC 50.345(i) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). This condition requires the Permittee to submit information requested by the Department.

Condition 62, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions the technology-based emission standard regulation and the excess emission regulation.

Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The Department used the language in SPC III, adopted by reference under 18 AAC 50.346(b)(2), for the permit condition. The Department used the notification form in SPC IV adopted by reference under 18 AAC 50.346(b)(3), for the notification requirements (see Section 12) for the notification requirements.

Condition 63, Operating Reports

Legal Basis: The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii)(A) which the Department has adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The Department used the language in SPC VII, adopted by reference under 18 AAC 50.346(b)(6), for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit.

The condition specifies that for the transition periods between an expiring permit and a renewal permit, the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports: one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 64, Annual Compliance Certification

Legal Basis: This condition requires compliance with the requirements in 40 CFR 71.6(c)(5), which the Department adopted by reference under 18 AAC 50.040(j).

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification.

Condition 64.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified. The Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period or may choose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

The Permittee is required to submit to the Department an annual compliance certification report. The Permittee may submit the required report electronically at their discretion.

Condition 65, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the Department so that the Department is able to satisfy the federal requirement to submit emission inventory data from point sources to the EPA as required under 40 CFR 51.15 and 51.321. The emission inventory requirement applies to sources defined as point sources in 40 CFR 51.50. The Department must report to EPA, emissions data as described in 40 CFR 51.15 and the data elements in Tables 2a and 2b of Appendix A to 40 CFR 51 Subpart A.

Factual Basis: The Department used the language in SPC XV, as adopted by reference under 18 AAC 50.346(b)(8), for the permit condition.

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's AOS web page at https://dec.alaska.gov/Applications/Air/airtoolsweb/. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options to submit the emission inventory are via mail, email, or fax.

Detailed instructions on completing and submitting the emission inventory and the report form are available at the Point Source Emission Inventory page http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory by clicking the Emission Inventory Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources classified as Type A in Table 1 of Appendix A to Subpart A of 40 CFR 51 are required to submit with each report emissions data described in 40 CFR 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A, as applicable. Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds shown in Condition 65.1 for Type A (large) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every year for the previous calendar year (also known as the inventory year). For triennial inventory years, Type A sources only need to submit one report, not both an annual report and a separate triennial report.

Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type B (small) sources shown in Condition 65.2.a (for attainment and unclassifiable areas) and Condition 65.2.b (for nonattainment areas), as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year. The emission thresholds for nonattainment areas listed in Condition 65.2.b vary depending on the nonattainment status of the area.

Condition 66, NSPS and NESHAP Reports

Legal Basis: The Permittee is required to provide the Department a copy of each report submitted to EPA as required for emissions units subject to NSPS or NESHAP federal

regulations under 18 AAC 50.326(j)(4). Appendix A to 40 CFR 70 documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: The condition supplements the specific reporting requirements in 40 CFR 60, 40 CFR 61, and 40 CFR 63. The reports themselves provide monitoring for compliance with this condition.

Condition 67, Permit Applications and Submittals

Legal Basis: 40 CFR 71.10(d)(1), adopted by the Department under 18 AAC 50.040(j)(7), requires submission of a copy of each permit application to EPA.

Factual Basis: The Department used the language in SPC XIV, adopted by reference under 18 AAC 50.346(b)(7), for the permit condition. The condition directs the applicant to send a copy of each application for modification or renewal of this permit to the EPA. The information may be submitted in electronic format if practicable. This condition shifts the burden of compliance with 40 CFR 71.10(d)(1) from the Department to the Permittee as allowed under 40 CFR 71.10(d)(1).

Conditions 68 through 70, Permit Changes and Revisions Requirements

Legal Basis: The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under18 AAC 50.326(j)(4). 40 CFR 71.6(a)(8), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require that these provisions be included in operating permits.

Factual Basis: 40 CFR 71.6(a)(12) and (13) specify changes that may be made without a permit revision, and 40 CFR 71.6(a)(8) states permit revisions are not required for some emissions trading and similar programs.

The Permittee did not request trading of emission increases and decreases as described in 40 CFR 71.6(a)(13)(iii), therefore language addressing these provisions has not been included in this permit as part of Condition 68.

Condition 71, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accordance with the operating permit program. The obligations for a timely and complete operating permit application are in 40 CFR 71.5 and 18 AAC 50.326(c).

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 CFR 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 CFR 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 CFR 71.5(c) and must remit payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 CFR 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

Therefore, as long as an application has been submitted within the timeframe specified under 40 CFR 71.5(a)(1)(iii) and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application.

Conditions 72 through 76, General Compliance Requirements

Legal Basis: These conditions require compliance with the requirements in 18 AAC 50.345(b) through (d) and (h) and 40 CFR 71.6(c)(3). As stated in 18 AAC 50.345(a), the requirements in 18 AAC 50.345(b) through (d) and (h) are standard conditions that must be included in all operating permits issued by the Department.

Factual Basis: These are standard conditions for compliance required for all operating permits.

Conditions 77 and 78, Permit Shield

Legal Basis: These conditions require compliance with the requirements in 40 CFR 71.6(f). These requirements apply because the Permittee has requested that the Department shield the stationary source from specific non-applicable requirements listed under this condition.

Factual Basis: Table B of Operating Permit AQ1086TVP02 shows the permit shields that the Department granted to the Permittee. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

The following table shows the requests that were denied and the reasons for the denial. The Department based the determinations on the permit application, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.

Table E - Permit Shields Denied

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 60 Subpart IIII	EUs 1–10 are dual fuel, spark ignition engines, not compression ignition.	Requirements applicable to compression ignition engines are not potentially applicable to EUs 1–10 and therefore a permit shield is not relevant.
40 CFR 60 Subpart Da	EUs 13 & 14 have heat inputs less than 250 MMBtu/hr and are therefore exempt per 40 CFR 60.40Da(e)(1).	These requirements are not potentially applicable and therefore a permit shield is not relevant.
40 CFR 60 Subpart Db	EUs 13 & 14 have a heat input less than 100 MMBtu/hr and are therefore exempt per 40 CFR 60.40b(a).	

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 63 Subpart JJJJJJ	EUs 13 & 14 meet the definition of gas fired boiler are therefore exempt under 40 CFR 63.11195(e)	These requirements are not potentially applicable and therefore a permit shield is not relevant.
40 CFR 63 Subpart DDDDD	EUs 13, 14, & 17 are not located at a major source of HAP and are therefore exempt per 40 CFR 63.7485.	These requirements are not potentially applicable to EUs 13, 14, & 17 and therefore a permit shield is not relevant.
40 CFR 60 Subpart K	Tanks, EUs 15 and 16, were constructed after the 1978 applicability date.	These requirements are not potentially applicable and therefore a permit shield is not relevant.
40 CFR 60 Subpart Ka	Tanks, EUs 15 and 16, were constructed after the 1984 applicability date.	
40 CFR 60 Subpart Kb	Tanks are exempt per 40 CFR 60.110b(b)	
40 CFR 60 Subparts C, Cb, Cc, Cd, Ce, D, Da, Db, E, Ea, Eb, Ec, F, G, Ga, H, I, J, Ja, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, VVa, WW, XX, AAA, BBB, DDD, FFF, GGG, GGGa, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, AAAA, BBB, CCCC, DDD, EEEE, FFFF, KKKK, LLLL, MMMM, OOOO, QQQQ, TTTT, UUUU	Not an affected stationary source, operation, or industry.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
40 CFR 63 Subpart B, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, RRRRR, SSSSS, TTTTT, UUUUU, WWWWW, YYYYY, ZZZZZ, BBBBBB, CCCCCC, DDDDDD, EEEEEE, FFFFFF, GGGGGG, HHHHHH, JJJJJJ, LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP, QQQQQQ, RRRRRR, SSSSSS, TTTTTT, VVVVVV, WWWWWW, XXXXXX, YYYYYY, ZZZZZZ, AAAAAAA, BBBBBBB, CCCCCCC, DDDDDDD, EEEEEEE, HHHHHHH	Not an affected stationary source, operation, or industry.	These are not potentially applicable requirements and therefore a permit shield is not relevant.

Shield Requested for:	Reason for Shield Request:	Reason for Denial
40 CFR 61 Subpart M	No affected emission units within the stationary source.	The requirements in 40 CFR 61.145, 61.150, and 61.152 are generally applicable to all sources and the Department has decided to include them in operating permits.
40 CFR 61 Subpart A, B, C, D, E, F, H, I, J, K, L, M, N, O, P, Q, R, T, V, W, Y, BB, and FF	No affected emission units within the stationary source.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
40 CFR 51.308(e) and 40 CFR 51 Appendix Y Guidelines for BART Determinations under the Regional Haze Rule	Stationary source is not an "existing stationary facility" as defined in 40 CFR 51.301.	These are not applicable requirements for Title V permits.
40 CFR 82 Subpart B	Stationary source and its employees do not perform service on motor vehicle air conditioners, for consideration or otherwise.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
18 AAC 50.055(a)(2)-(a)(9)	The stationary source does not contain any EUs subject to these opacity standards.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
18 AAC 50.055(b)(2)-(b)(6)	The stationary source does not contain any EUs subject to these particulate matter standards.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
18 AAC 50.055(d)-(f)	The stationary source does not contain any EUs subject to these sulfur standards.	These are not potentially applicable requirements and therefore a permit shield is not relevant.
18 AAC 50.0060	The stationary source is not an affected source regulated by these standards.	18 AAC 50.060 was repealed 8/20/2016.
18 AAC 50.070, 50.075, 50.076, 50.077, 50.085, 50.090	The stationary source is not an affected source regulated by these standards.	These are not potentially applicable requirements and therefore a permit shield is not relevant.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

MAR 12 2018

OFFICE OF
AIR AND WASTE

Mr. Gary W. Peers
Eklutna Station Plant Manager
Matanuska Electric Association, Inc.
163 East Industrial Way
P.O. Box 2929
Palmer, Alaska 99645

Re: NSPS Subpart JJJJ Testing Waiver Request for Matanuska Electric Association, Inc. Eklutna Generation Station

Dear Mr. Peers:

This is a response to your letter on behalf of Matanuska Electric Association, Inc. (MEA) submitted to the U.S. Environmental Protection Agency (EPA) on May 12, 2015, for its Eklutna Generation Station (EGS) located near Palmer, Alaska. Your letter requested a waiver from ongoing performance test requirements in 40 CFR 63.8 and the *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* at 40 CFR part 60, subpart JJJJ (NSPS JJJJ). You have requested a waiver such that MEA would be allowed to test one dual-fuel, spark ignition engine at the EGS to assure continuing compliance with NSPS JJJJ for 10 similar units. Based on the information provided by MEA and the terms of the applicable EGS Clean Air Act permits, EPA is granting your waiver request with modifications and subject to conditions, as described below.

Background

According to the information MEA provided in its May 2015 submittal and subsequent data requests, as well as information in the EGS part 70 permit and associated statement of basis document prepared by the State of Alaska, MEA installed ten 17.1 MW Wartsila 18V50DF engines at the EGS in February of 2015.[1] These 2012 model year engines may be fired on natural gas or ultra-low sulfur diesel (ULSD).[2] This type of unit operates without a sparkplug. Injection of a small amount of distillate fuel (diesel) just before maximum compression initiates combustion. MEA operates and maintains these engines as baseload units for the purpose of generating electricity for the surrounding community.

---

[1] The engines identified in the EGS part 70 permit have the following emission unit IDs and serial numbers: Emission Unit (EU) 1, Serial Number: PAAE201768; EU 2, Serial Number: PAAE201767; EU 3, Serial Number: PAAE201770; EU 4, Serial Number: PAAE201774; EU 5, Serial Number: PAAE233705; EU 6, Serial Number: PAAE201773; EU 7, Serial Number: PAA201771; EU 8, Serial Number: PAAE201769; EU 9, Serial Number: PAAE233706; EU 10, Serial Number: PAAE201772.

[2] There is no limit on natural gas. The State of Alaska limits ULSD combustion to 1,680 hours in EU 1-10 under its federally-enforceable new source review program. According to records provided by MEA, the units are fired on ULSD only a few hundred hours per year (averaged over all ten engines).

Each engine is equipped with a selective catalytic reduction (SCR) system for control of oxides of nitrogen (NO_x) and catalytic oxidation (CatOx) equipment for control of carbon monoxide (CO) and volatile organic compounds (VOC). Condition 15 in the EGS part 70 permit requires continuous operation of the SCR and CatOx systems, provides for continuous monitoring of SCR and CatOx operating parameters, and specifies records that must be maintained and reported.[3]

NSPS JJJJ establishes emission limits for NOx, CO, and VOC for stationary spark ignition internal combustion engines and requires an initial performance test within one year of engine startup and subsequent performance testing every 8,760 hours or three years, whichever comes first, to demonstrate continuing compliance thereafter. *See* 40 CFR 60.4243(a)(2)(iii).

MEA performed an initial compliance test on all ten engines at the EGS in February and March of 2015. Subsequent tests were performed on all ten engines in January of 2016[4] and March of 2017. The results of these performance tests are summarized in the following table.

	NO_x	CO	VOC
NSPS JJJJ Limit	82	270	60
2015 Test results	Range: 1.3-5.2 Mean: 2.5	Range: 0.8-2.4 Mean: 1.7	Range: 0.4-3.5 Mean: 2.2
2016 Test results	Range: 1.8-5.5 Mean: 3.7	Range: 0.5-1.9 Mean: 1.1	Range: 0.3-2.2 Mean: 1.4
2017 Test results	Range: 2.1-3.7 Mean: 2.8	Range: 1.8-3.0 Mean: 2.4	Range: 1.9-7.5 Mean: 3.2

All measurements are parts per million, dry volume (ppm_{vd}) corrected to 15 percent oxygen

MEA also provided information regarding annual hours of operation for the 10 engines, summarized in the following table.

	EU1	EU2	EU3	EU4	EU5	EU6	EU7	EU8	EU9	EU10
2015	3,026	5,553	2,368	4,114	3,477	5,067	4,154	4,818	5,787	3,172
2016	4,789	7,139	5,857	6,519	6,339	6,765	7,217	4,309	4,383	4,924
2017	5,229	6,208	3,961	6,206	3,920	6,429	6,439	4,068	5,337	4,958
Total	13,044	18,900	12,186	16,839	13,736	18,261	17,810	13,195	15,507	13,054
Minimum = 12,186 (20 percent below the mean) Mean = 15,253 Maximum = 18,900 (24 percent above the mean)										

Regulatory Background

EPA has authority to waive a performance test requirement pursuant to the provisions at 40 CFR 60.8(b)(4) if the owner or operator of the source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the applicable standards. As provided in EPA's Clean Air Act National Stack Testing Guidance issued on April 27, 2009, a waiver for one or more similar units "may be appropriate on a case-by-case basis when criteria similar to the following are met":

[3] Condition 15 in the facility's title V operating permits has its origin in minor new source review permit issued by the State of Alaska on November 6, 2016 (Permit 1086MSS03, Condition 8).

[4] EU 9 was tested in June of 2016 because it had not been operating in January.

1. the units are located at the same facility;
2. the units are produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specifications;
3. the units are operated and maintained in a similar manner; and
4. the delegated agency, based on documentation submitted by the facility:
   a. determines that the margin of compliance for the identical units tested is significant and can be maintained on an ongoing basis; or
   b. determines based on a review of sufficient emissions data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit will be in compliance. These factors may include, but are not limited to, the following:
      (1) historical records at the tested unit showing consistent/invariant load;
      (2) fuel characteristics yielding low variability, e.g., oil and, therefore, assurance that emissions will be constant and below allowable levels;
      (3) statistical analysis of a robust emissions data set demonstrate sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable.

Determination

EPA is approving a waiver for MEA from ongoing performance testing required under NSPS JJJJ at 40 CFR 60.4243(a)(2)(iii) for NO_x, CO, and VOC emission standards for its Wartsila 18V50DF engines (identified as EU 1 through EU 10) subject to the conditions specified below. The information provided demonstrates that EU 1 through EU 10 are located at the same facility; produced by the same manufacturer; have the same model number or other manufacturer's designation in common; have the same rated capacity and operating specifications; and are operated and maintained in a similar manner. The margin of compliance as shown by the testing of all emission units is significant, which is due in large part to the requirement that the units be operated with SCR and CatOx control equipment. To ensure this margin of compliance is maintained on an ongoing basis, this waiver is subject to the following conditions and automatically terminates if these conditions are not met:

1. During each scheduled performance test, at least two of the Wartsila 18V50DF engines covered by the waiver shall be tested. After any five consecutive performance tests (or one half the sum of the remaining engines, rounding up to a whole number if necessary, if any engines have been retired from service or have become ineligible for the waiver), all of the Wartsila 18V50DF engines covered by the waiver shall have been tested.

2. MEA shall perform each subsequent test of its Wartsila 18V50DF engines within three years from the date of the previous test, or before such a time that any Wartsila 18V50DF engine covered by the waiver has operated 8,760 hours from the date of the previous test, whichever comes first.

3. The units must remain subject to federally-enforceable permit requirements that provide for continuous operation of the SCR and CatOx systems, continuous monitoring of SCR and CatOx operating parameters, and recordkeeping and reporting requirements that are consistent with the EGS ADEC operating permit AQ1086TVP01, issued, January 27, 2017.

4. Emissions of any pollutant regulated by NSPS JJJJ from any tested engine must remain at or below 50 percent of the level of the standard.

5. The units must remain at the MEA EGS located southwest of Palmer, Alaska.

This waiver applies only to performance testing requirements of the Wartsilla 18V50DF engines for NO_x, CO, and VOC emission standards under NSPS JJJJ, applicable to EU 1 through EU 10. Any compliance obligation not specifically waived in this letter continues to apply. This waiver is effective from the date of this letter.

If you have any questions regarding this determination, please contact Geoffrey Glass at (206) 553-1847 or at glass.geoffrey@epa.gov.

Sincerely,

Kelly McFadden, Manager
Stationary Source Unit

cc: Mr. James Plosay, Alaska Department of Environmental Conservation
Ms. Kathie Mulkey, Alaska Department of Environmental Conservation (email)
Ms. Jamie Brewer, SLR Consulting (email)
Ms. Traci Bradford (email)