

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. AQ0196TVP04

Issue Date: Public Comment - August 25, 2022

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, **Kotzebue Electric Association**, for the operation of the **Kotzebue Power Plant**.

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 Control Minor Permits AQ0196MSS04, AQ0196MSS06, AQ0196MSS08, and AQ0196MSS09, have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit AQ0196TVP03, Revision 4 expires.

This operating permit becomes effective <insert date—30 days after issue date>.

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC.....	Alaska Administrative Code	NA	Not applicable
ADEC	Alaska Department of Environmental Conservation	NAICS	North American Industrial Classification System
Administrator.....	EPA and the Department	NESHAP	National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
AOS	Air Online Services	NH ₃	ammonia
AS	Alaska Statutes	NO _x	nitrogen oxides
ASTM.....	American Society for Testing and Materials	N ₂ O.....	nitrous oxide
BACT	best available control technology	NSPS	New Source Performance Standards [as contained in 40 CFR 60]
CDX.....	Central Data Exchange	O & M	operation and maintenance
CEDRI	Compliance and Emissions Data Reporting Interface	O ₂	oxygen
CFR	Code of Federal Regulations	PAL	plantwide applicability limitation
CAA or The Act .	Clean Air Act	Pb.....	lead
CO	carbon monoxide	PM	particulate matter
CO ₂ e	CO ₂ -equivalent	PM ₁₀	particulate matter less than or equal to a nominal 10 microns in diameter
Department	Alaska Department of Environmental Conservation	PM _{2.5}	particulate matter less than or equal to a nominal 2.5 microns in diameter
dscf	dry standard cubic foot	ppm	parts per million
EPA	US Environmental Protection Agency	ppmv, ppmvd.....	parts per million by volume on a dry basis
EU.....	emissions unit	psia	pounds per square inch (absolute)
EU ID	emissions unit identification number	PSD	prevention of significant deterioration
GACT	Generally Available Control Technology	PTE.....	potential to emit
GAPCP	good air pollution control practice	SIC.....	Standard Industrial Classification
GHG	greenhouse gas	SIP	State Implementation Plan
gr/dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	SPC.....	Standard Permit Condition
gph.....	gallons per hour	SO ₂	sulfur dioxide
HAP	hazardous air pollutants [as defined in AS 46.14.990]	tph.....	tons per hour
kPa.....	kiloPascals	tpy.....	tons per year
LAER.....	lowest achievable emission rate	VOC	volatile organic compound [as defined in 40 CFR 51.100(s)]
MACT	maximum achievable control technology [as defined in 40 CFR 63]	VOL.....	volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
MMBtu/hr.....	million British thermal units per hour	vol%	volume percent
MMscf	million standard cubic feet	wt%	weight percent
MR&R	monitoring, recordkeeping, and reporting	wt%S _{fuel}	weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:	Kotzebue Electric Association P.O. Box 44 Kotzebue, AK 99752	
Stationary Source Name:	Kotzebue Power Plant	
Location:	66° 53' 36.32" North; 162° 35' 45.46" West	
Physical Address:	4th & Lagoon Streets, building 245A Kotzebue, AK 99752	
Owner/Operator	Kotzebue Electric Association P.O. Box 44 Kotzebue, AK 99752	
Permittee's Responsible Official:	Martin Shroyer, General Manager and CEO P.O. Box 44 Kotzebue, AK 99752	
Designated Agent:	Martin Shroyer P.O. Box 44 Kotzebue, AK 99752	
Stationary Source and Building Contact:	Martin Shroyer P.O. Box 44 Kotzebue, AK 99752 907-442-3491	
Fee and Permit Contact:	Martin Shroyer P.O. Box 44 Kotzebue, AK 99752 907-442-3491 m_shroyer@kea.coop	
Process Description:	SIC Code	4911 - Electric Services
	NAICS Code:	221112 - Electric power generation, fossil fuel

[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	EU Name	EU Description	Rating/Size	Installation or Construction Date
7B	Caterpillar 3516	Diesel Electric Generator	1,135 kW	1987
10	GM EMD 20-710-G4	Diesel Electric Generator	3,080 kW	1992
14	GM EMD 16-710-G4	Diesel Electric Generator	2,865 kW	1994
15	GM EMD 16-710-G4	Diesel Electric Generator	2,865 kW	2005
16	GM EMD 8-710-GC	Diesel Electric Generator	1,441 kW	2012
17	Caterpillar C27	Diesel Electric Generator	725 kW	2015 ¹
18	Inov8-B1050	Used Oil Boiler	1.16 MMBtu/hr	2013

Notes:

¹ EU ID 17 is a 2014 model year engine.

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

Section 3. State Requirements

Visible Emissions Standards

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 7B, 10, and 14 through 18 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

- 1.1. For EU IDs 7B, 10, and 14 through 18, monitor, record, and report in accordance with Conditions 2 through 4.

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

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

Liquid Fuel-Burning Equipment

2. **Visible Emissions Monitoring.** When required by Condition 1.1 or in the event of replacement¹ during the permit term, the Permittee shall observe the exhaust of EU IDs 7B, 10, and 14 through 17 for visible emissions using either the Method 9 Plan under Condition 2.3 or the Smoke/No-Smoke Plan under Condition 2.4. The Permittee shall observe the exhaust of EU ID 18 for visible emissions using the Method 9 Plan under Condition 2.3 **while burning the same used oil/ULSD blend that is burned during normal operations.**

[Condition 8, Minor Permit AQ0196MSS08, 6/21/2019]

- 2.1. The Permittee may change the visible emissions monitoring plan for EU IDs 7B, 10, and 14 through 17 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 the emissions unit exhaust following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.²

- a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhausts of EU IDs 7B, 10, and 14 through 18 according to the following criteria:

- (i) For EU IDs 7B, 10, and 14 through 17, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.4.

¹ "Replacement," as defined in 40 CFR 51.166(b)(32).

² Visible emissions observations are not required during emergency operations.

- (ii) Except as provided in Condition 2.3.a(iv), for any of EU IDs 7B, 10, and 14 through 17, observe exhaust within six months after the effective date of this permit.
- (iii) The Permittee shall observe the exhaust of EU ID 18 within 60 calendar days of the emission unit becoming fully operational.³
[Condition 8.1.a(i), Minor Permit AQ0196MSS08, 6/21/2019]
- (iv) For any unit replaced, observe exhaust within 60 calendar days of the newly installed emissions unit becoming fully operational. Except as provided in Condition 2.3.e, after the first Method 9 observation:
 - (A) For EU IDs 7B, 10, and 14 through 18, continue with the monitoring schedule of the replaced emissions unit.
- 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.
- 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.

³ “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.

- 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 Emissions 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; and

- (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 60 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 reset the visible emissions monitoring schedule.
- 4.2. Include in each operating report under Condition 60 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 59:
- 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.

Particulate Matter (PM) Emissions Standard

5. **Industrial Process and Fuel-Burning Equipment PM Emissions.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 7B, 10, and 14 through 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.

- 5.1. For EU IDs 7B, 10, and 14 through 17, monitor, record and report in accordance with Conditions 6 through 8.

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

- 5.2. For EU ID 18, monitor, record, and report in accordance with Condition 9.

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

Particulate Matter MR&R

Liquid Fuel-Burning Engines

6. **Particulate Matter Monitoring.** The Permittee shall conduct source tests on EU IDs 7B, 10, and 14 through 17 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 7B, 10, and 14 through 17 is greater than the criteria of Conditions 6.2.a or 6.2.b, 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 requirements 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 comply with the following:

- 7.1. 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 60, 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 59:
 - a. anytime the results of a PM 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)]

Liquid Fuel-Burning Used Oil Boiler

9. Particulate Matter MR&R for Used Oil Burner.⁴ The Permittee may burn used oil mixed with ULSD in EU ID 18 as follows:

- 9.1. Measure and record the ash content of a representative sample of the used oil at least once every three months when EU ID 18 is operated using ASTM D482, ASTM UOP1016, or an appropriate alternative method adopted in 18 AAC 50.035(c).
- 9.2. If the results from four consecutive samples analyzed under Condition 9.1 are each below 0.50 percent, sampling may be reduced to:
 - a. Once within a 12-month period after the preceding sampling when EU ID 18 operates during the 12-month period, or
 - b. During the next operation of EU ID 18 immediately following 12 months after the preceding sampling.

⁴ CAUTION! Although this condition should ensure compliance with the applicable emission standards of 18 AAC 50, this permit does NOT ensure compliance with other applicable state or federal laws concerning management, use, or disposal of used oil.

- 9.3. If a sample result under Condition 9.2 is greater than or equal to 0.50 percent, the Permittee shall resume sampling in accordance with Condition 9.1 until the criteria in Condition 9.2 is met.
- 9.4. Comply with the state particulate matter standard listed in Condition 5 by blending the used oil with ULSD using a metering system or other reproducible method accurate to plus or minus five percent, at the appropriate ratio listed below and where A is the most recently measured weight percent of ash in the used oil:
- 0.00 ≤ A ≤ 0.17, no blending with ULSD is required
- 0.17 < A ≤ 0.23, blend 0.5 parts of ULSD per 1 part of used oil
- 0.23 < A ≤ 0.30, blend 1 part of ULSD per 1 part of used oil
- 0.30 < A ≤ 0.36, blend 1.5 parts of ULSD per 1 part of used oil
- 0.36 < A ≤ 0.43, blend 2 parts of ULSD per 1 part of used oil
- 0.43 < A ≤ 0.50, blend 2.5 parts of ULSD per 1 part of used oil

If the ash content of the used oil is greater than 0.50 weight percent, then calculate the blending ratio as follows:

$$X \geq \frac{0.3A - 0.05}{0.04}$$

Where:

A = the most recently measured weight percent of ash in the used oil.

X = number of parts of ULSD to be mixed with 1 part of used oil.

- 9.5. Record the date, quantity of used oil blended (gallons), and the quantity of ULSD blended (gallons) for combustion in EU ID 18.
- 9.6. Include the ash content records from Condition 9.1 and the blending records from Condition 9.5 in the operating report required by Condition 60.
- 9.7. Report in accordance with Condition 59 if any of Conditions 9.1 through 9.6 are not met.

[Condition 11.1, Minor Permit AQ0196MSS08, 6/21/2019]

Sulfur Compound Emission Standard

- 10. Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU IDs 7B, 10, and 14 through 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

*Fuel Oil*⁵

11. For EU IDs 7B, 10, and 14 through 17, to ensure compliance with Condition 10, the Permittee shall comply with the fuel sulfur content limit and associated MR&R requirements in Conditions 19 and 20.

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

Used Oil

12. **Sulfur Compound Emissions MR&R.** For used oil combusted in EU ID 18, the Permittee shall:

12.1. Comply with Condition 9.1.

12.2. If the ash content of the most recently measured used oil sample is less than or equal to 0.17 weight percent, the Permittee shall:

- a. Analyze the sulfur content of a representative sample of the used oil at least once every three months when EU ID 18 is operated using an appropriate method listed in 18 AAC 50.035(b)–(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).
- b. If the results from four consecutive samples analyzed under Condition 12.2.a are each 0.50 weight percent sulfur or less, sampling may be reduced to:
 - (i) Once within a 12-month period after the preceding sampling when EU ID 18 operates during the 12-month period; or
 - (ii) During the next operation of EU ID 18 immediately following 12 months after the preceding sampling.
- c. If the analysis conducted under Condition 12.2.a results in a sulfur content of greater than 0.50 weight percent, the Permittee shall:
 - (i) Resume sampling in accordance with Condition 12.2.a until the criteria in Condition 12.2.b is met.
 - (ii) Blend the used oil with ULSD using a metering system or other reproducible method accurate to plus or minus five percent, at the appropriate ratio listed below and where S is the most recently measured weight percent of sulfur in the used oil:

 $0.5 < S \leq 0.75$, blend 0.5 parts of ULSD per 1 part of used oil
 $0.75 < S \leq 1.0$, blend 1 part of ULSD per 1 part of used oil
 $1.0 < S \leq 1.25$, blend 1.5 parts of ULSD per 1 part of used oil

⁵ 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.

$1.25 < S \leq 1.5$, blend 2 parts of ULSD per 1 part of used oil

- d. Include the sulfur content records from Condition 12.2.a and the blending records from Condition 12.2.c(ii) in the operating report required by Condition 60.
- e. Report in accordance with Condition 59 if any of Conditions 12.2.a through 12.2.d are not met.

[Conditions 12.1 & 12.2, Minor Permit AQ0196MSS08, 6/21/2019]

Preconstruction Permit⁶ Requirements

Best Available Control Technology (BACT) Requirements

- 13. NO_x BACT.** For EU ID 7B, limit NO_x emissions to 45 lb/hr, expressed as NO₂, averaged over the duration of an emission performance test or any three consecutive hours.

[Condition 2.1, Minor Permit AQ0196MSS06, 7/28/2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

- 13.1. Report in accordance with Condition 59 any time the limit in Condition 13 is exceeded.

[40 CFR 71.6(a)(3) & (c)(6)]

- 14. NO_x BACT.** For EU IDs 10 and 14, limit the NO_x emissions expressed as NO₂, averaged over the duration of an emission performance test or any three consecutive hours to 75 lb/hr each.

[Condition 9, Minor Permit AQ0196MSS04, 3/1/2016]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

- 14.1. Operate EU ID 10 and 14 with optimal fuel injection timing retard, with an improved injector design, and with a four pass aftercooler with separate cooling water supply. Optimal fuel injection timing retard balances low NO_x emissions with engine performance (i.e. fuel consumption and visible emissions).

- 14.2. No less than once per calendar year, verify that the engine setting used in the source test is being maintained. Submit documents or maintenance logs in the operating report required by Condition 60.

[Conditions 9.1 and 9.2, Minor Permit AQ0196MSS04, 3/1/2016]
[40 CFR 71.6(a)(3)]

- 15. SO₂ BACT.** For EU IDs 10 and 14:

- 15.1. The sulfur content of the oil burned shall not exceed 0.49 percent by weight at any time.

[Condition 10.1, Minor Permit AQ0196MSS04, 3/1/2016]
[40 CFR 71.6(a)(1)]

⁶ 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.

15.2. To ensure compliance with Condition 15.1, the Permittee shall comply with the fuel sulfur content limit and associated MR&R requirements in Conditions 19.

15.3. Report in accordance with Condition 59 if the sulfur content of the fuel burned in EU IDs 10 and 14 exceeds the limit in Condition 15.1.

[18 AAC 50.040(j) & 50.326(j)(4)]

[40 CFR 71.6(a)(3) & (c)(6)]

16. CO BACT. Limit the CO emission rate of EU ID 10 to 16 lb/hr, averaged over the duration of an emission performance test or any three consecutive hours.

[Condition 11, Minor Permit AQ0196MSS04, 3/1/2016]

[18 AAC 50.040(j) & 50.326(j)(4)]

[40 CFR 71.6(a)(1)]

16.1. Operate with good combustion practices.

16.2. No later than every five years after the first source test of EU ID 10, conduct a source test for CO, in accordance with Section 6, at the maximum and minimum load within the normal operating range to ascertain compliance with the emission limit in Condition 16.

[Conditions 11.1 and 11.2, Minor Permit AQ0196MSS04, 3/1/2016]

[40 CFR 71.6(a)(3)]

a. Determine the CO emission rate using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 6.

b. Monitor and record the fuel consumption rate and electrical power-generating rate during each source test run and provide in the emission source test report.

[40 CFR 71.6(a)(3) & (c)(6)]

16.3. Report in accordance with Condition 59 any time the limit in Condition 16 is exceeded.

[40 CFR 71.6(a)(3) & (c)(6)]

Owner Requested Limits (ORLs)

17. ORL to Avoid PSD Modification. Limit the NO_x emissions from EU ID 16 to less than or equal to 79.3 tons in any consecutive 12-month period.

[Condition 7, Minor Permit AQ0196MSS09, 10/29/2021]

[18 AAC 50.040(j) & 50.326(j)(4)]

[40 CFR 71.6(a)(1)]

17.1. Monitor in accordance with Conditions 18.2 and 18.3.

17.2. By the 15th day of each month, calculate and record:

a. the consecutive 12-month NO_x emissions from EU ID 16, in tons, using the data recorded under Condition 18.2, or Condition 18.3 when kW-e-hr data is unavailable, and the appropriate emission factor in Condition 18.4.

[Conditions 7.1 & 7.2, Minor Permit AQ0196MSS09, 10/29/2021]

- 17.3. Include copies of the records required under Condition 17.2.a in each operating report required by Condition 60.
- 17.4. Report in accordance with Condition 59 if the consecutive 12-month NO_x emissions calculated under Condition 17.2.a exceeds the limit in Condition 17.

[40 CFR 71.6(a)(3)]

18. ORL to Avoid PSD Modification and Minor Permit Requirements. Limit the combined NO_x emissions from EU IDs 7B, 10, and 14 through 17 to less than 314 tons for any twelve consecutive calendar months expressed as NO₂.

[Condition 13, Minor Permit AQ0196MSS04, 3/1/2016]

[18 AAC 50.040(j) & 50.326(j)(4)]

[40 CFR 71.6(a)(1)]

- 18.1. Operate EU ID 15 with optimal fuel injection timing retard, with an improved injector design, and with a four pass aftercooler with separate cooling water supply. Optimal fuel injection timing retard balances low NO_x emissions with engine performance (i.e., fuel consumption and visible emissions).
- a. No less than once per calendar year, verify that the engine setting used in the source test is being maintained. Submit documents or maintenance logs in the operating report required by Condition 60.
- [Condition 13.1 & 13.1a, Minor Permit AQ0196MSS04, 3/1/2016]
- 18.2. Monitor and record the average electrical kilowatts (kWe) generated by EU IDs 7B, 10, and 14 through 17 each minute of operation and sum the kWe-hrs for each of EU IDs 7B, 10, and 14 through 17 for all periods of operation each month.
- 18.3. Monitor and record hours of operation for each of EU IDs 7B, 10, and 14 through 17 on a daily basis.
- 18.4. By the 15th day of each month, calculate and record:
- a. NO_x emissions from each of EU IDs 7B, 10, and 14 through 17 using the kWe-hrs recorded under Condition 18.2 for the previous calendar month and the appropriate emission factor⁷ as follows:

EU ID	Emission Factor (lb/kWe-hr)
7B	0.031
10	0.023
14	0.025
15	0.026
16	0.018
17	0.007

⁷ If an updated emission factor from a Department accepted NO_x source test is available and testing was conducted at 95 percent or greater of allowable or maximum load, the Permittee shall use the emission rate measured during the most recent source test conducted for each of EU IDs 7B, 10, and 14 through 17. The Permittee shall begin using the emission factor on the first day of the month in which the source test results were accepted by the Department.

- b. NO_x emissions using the hours of operation recorded under Condition 18.3, **only** when kW-e-hr data is unavailable for one or more of EU IDs 7B, 10, and 14 through 17, and the appropriate emission factor¹ as follows:

EU ID	Emission Factor (lb/hr)
7B	35.74
10	68.08
14	70.99
15	73.86
16	24.64
17	5.02

[Conditions 6.1 through 6.3, Minor Permit AQ0196MSS09, 10/29/2021]

- 18.5. Conduct a source test for NO_x for each of EUs 7B, 10, 14 and 15 within five years of the most recent source test and at least once every 5 years thereafter.

[Condition 13.4, Minor Permit AQ0196MSS04, 3/1/2016]
[40 CFR 71.6(a)(3)]

- a. Tests shall be conducted:

- (i) at three loads in the normal operating range of the emission unit and at maximum achievable load.

[Condition 4.1, Minor Permit AQ0196MSS06, 7/28/2017]

- (ii) in accordance with source testing requirements in Section 6.

[Condition 13.4a(ii), Minor Permit AQ0196MSS04, 3/1/2016]

- b. Monitor and record the fuel consumption rate and electrical power generating rate during each source test run and provide in the source test report. In addition, document the fuel injection timing setting and provide in the source test report.

- c. Three 1-hour test runs shall be conducted at each load. For each test run, determine a NO_x emission rate for each load expressed as NO₂ using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 6 of this permit.

[Conditions 13.4b & 13.4c, Minor Permit AQ0196MSS04, 3/1/2016]
[40 CFR 71.6(a)(3)]

- 18.6. Attach to the periodic operating report required in Condition 60, the cumulative twelve-month NO_x emissions, expressed as NO₂, from EU IDs 7B, 10, and 14, through 17.

[Condition 13.5, Minor Permit AQ0196MSS04, 3/1/2016]

18.7. If the combined NO_x emissions for EU IDs 7B, 10, and 14 through 17 exceed 310 tons for any twelve consecutive month period, then install and certify a Continuous Emission Monitoring System (CEMS) with data acquisition for each of EU IDs 7B, 10, and 14 through 17 within 180 days.

- a. Monitor compliance with the emission limit listed in Condition 18 with CEMS.
- b. During operations of each of EU IDs 7B, 10, and 14 through 17:
 - (i) Measure and record the one-hour average NO_x emission concentration.
 - (ii) Calculate and record the one-hour average NO_x emission concentration, corrected to 15% O₂.
 - (iii) Calculate and record the three-consecutive-hour average NO_x emission concentration, corrected to 15% O₂, no less than once each hour. Calculate and record the three-consecutive-hour average NO_x emission rates expressed as NO₂, based on the methodology set out in 40 CFR 60, Appendix A, Method 19.
 - (iv) Calculate and record the total NO_x emissions, expressed as NO₂, for each 24-hour and monthly period.
 - (v) Calculate and record the twelve-consecutive-month averages of NO_x emissions expressed as NO₂.
 - (vi) Record the CEMS daily calibration check. Maintain a log to document date, time, duration, and reason for any period during which the CEMS is out-of-bounds with CEMS performance parameters.
 - (vii) Conduct cylinder gas audits and relative accuracy audits in accordance with 40 CFR 60, Appendix F.
 - (viii) Report the cumulative twelve-month total NO_x emissions, expressed as NO₂, from EU IDs 7B, 10, and 14 through 17 in the periodic operating report required in Condition 60.

[Condition 13.6, Minor Permit AQ0196MSS04, 3/1/2016]

18.8. Report in accordance with Condition 59 any time the limit in Condition 18 is exceeded.

[40 CFR 71.6(a)(3) & (c)(6)]

19. ORL to Avoid PSD Modification. Limit the combined SO₂ emissions from EU IDs 7B, 10, 14, and 15 to no greater than 68 tons in any twelve consecutive month period.

[Condition 14, Minor Permit AQ0196MSS04, 3/1/2016]

[18 AAC 50.040(j) & 50.326(j)(4)]

[40 CFR 71.6(a)(1)]

19.1. Burn only Ultra Low Sulfur Diesel (ULSD) fuel in EU IDs 7B, 10, 14 and 15.

[Condition 5.1, Minor Permit AQ0196MSS08, 6/21/2019]
[40 CFR 71.6(a)(1)]

- a. Keep the receipts of each fuel shipment indicating the sulfur content of all the fuel delivered at the stationary source and provide copies of the fuel receipts in the operating report required by Condition 60; and
- b. Report in accordance with Condition 59 if any fuel burned in any of EU IDs 7B, 10, 14 and 15 is not USLD.

[40 CFR 71.6(a)(3)]

20. Limit to Avoid PSD Modification and Minor Permitting. Limit the combined SO₂ emissions from EU IDs 16 and 17 to no greater than 1 ton in any consecutive 12-month period.

20.1. Burn only ULSD fuel in EU IDs 16 and 17.

[Conditions 6 & 6.1, Minor Permit AQ0196MSS08, 6/21/2019]
[40 CFR 71.6(a)(1)]

- a. Maintain records in accordance with Condition 19.1.a; and
- b. Report in accordance with Condition 59 if any fuel burned in EU ID 16 or EU ID 17 is not USLD.

[40 CFR 71.6(a)(3)]

Requirements for Ambient Air Quality Protection

21. Exhaust Stack Height Requirements. The Permittee shall operate EU IDs 7B, 10, 14, and 15 with the following parameters:

[Condition 15, Minor Permit AQ0196MSS04, 3/1/2016]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

21.1. Engine exhaust no less than 16.5 meters above ground level;

21.2. Provide stacks with:

- a. Sampling ports that comport with 40 CFR 60, Appendix A, Method 1, Section 2.1, and a stack or duct free of cyclonic flow at the port location during applicable test methods and procedures;
- b. Safe sampling platforms;
- c. Safe access to sampling platforms; and
- d. Utilities for emission sampling at testing equipment;

[Conditions 15.1 & 15.2, Minor Permit AQ0196MSS04, 3/1/2016]

Insignificant Emissions Units

22. 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:

- 22.1. **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)]
- 22.2. **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)]
- 22.3. **Sulfur Standard:** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.
[18 AAC 50.055(c)]
- 22.4. **General MR&R for Insignificant Emissions Units.** The Permittee shall comply with the following:
- a. Submit the certification of compliance of Condition 61 based on reasonable inquiry;
 - b. Comply with the requirements of Condition 42; and
 - c. Report in the operating report required by Condition 60 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions become greater than any of those thresholds.
 - d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 22.1, 22.2, and 22.3.
- [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

- 23. NSPS Subpart A Notification.** Unless exempted by a specific subpart, for any affected facility⁸ or existing facility⁹ regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator¹⁰ 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]

- 23.1. A notification of the date 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 completed form.

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

- 23.2. 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]

- 23.3. 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:¹¹

- 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]

- 23.4. 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]

⁸ Affected facility means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.

⁹ Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in 40 CFR Part 60, 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.

¹⁰ The Department defines "Administrator" in 18 AAC 50.990(2).

¹¹ The Department and EPA may request additional relevant information subsequent to this notice.

- 23.5. 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 replacements is commenced and must include the following information:

[40 CFR 60.15(d), Subpart A]

- 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.

24. **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 25. 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 III¹² - Compression Ignition (CI) Internal Combustion Engines (ICE)

25. **NSPS Subpart III Applicability.** For EU IDs 16 and 17, the Permittee shall comply with all applicable requirements in 40 CFR 60 Subpart III for stationary compression ignition (CI) internal combustion engines (ICE) whose construction, modification, or reconstruction commences after July 11, 2005.

- 25.1. The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in Conditions 25.3 and 25.4 over the entire life of the engine.

¹² The provisions of NSPS Subpart III listed in Condition 25 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 these conditions.

- 25.2. The Permittee shall comply with the applicable provisions of NSPS Subpart A as specified in Table 8 to NSPS Subpart IIII.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]

[40 CFR 60.4200(a)(2), 60.4206, 60.4218, & Table 8, Subpart IIII]

NSPS Subpart IIII Emission Standards

- 25.3. For EU ID 16, the Permittee must comply with the following emission standards:

- a. THC + NO_x: 7.8 g/kW-hr
- b. CO: 5 g/kW-hr
- c. PM: 0.27 g/kW-hr

[40 CFR 60.4204(b) & 60.4201(d)(1), Subpart IIII]

[40 CFR 1042, Appendix I, Table 2, Subchapter U]

- 25.4. For EU ID 17, the Permittee must comply with the following emission standards:

- a. PM: 0.10 g/kW-hr
- b. NO_x: 3.5 g/kW-hr
- c. NMHC: 0.40 g/kW-hr
- d. CO: 3.5 g/kW-hr
- e. Unless exempt under 40 CFR 1039.105(a), smoke from your engine 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 60.4204(b) & 60.4201(a), Subpart IIII]

[40 CFR 1039.102(b) Table 7 & 1039.105, Subpart B]

- 25.5. For EU IDs 16 and 17, the Permittee must meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212, for performance tests conducted in-use.

[40 CFR 60.4204(d), Subpart IIII]

NSPS Subpart IIII Fuel Requirements¹³

- 25.6. For EU ID 17, the Permittee shall comply with the following:

¹³ The provisions of 40 CFR 60.4207 do not apply to pre-2014 model year stationary CI ICE located in remote areas of Alaska, per 40 CFR 60.4216(d). EU ID 16 is a 2012 model year CI ICE.

- a. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to NSPS Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of Condition 25.6.a(i) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), Subpart IIII]

- (i) Except as specified in 40 CFR 1090.300(a), diesel fuel must meet the ULSD per-gallon standards as follows:

[40 CFR 1090.305, Subpart D]

- (A) Maximum sulfur content of 15 ppm.

- (B) Diesel fuel must meet one of the following standards:

- (1) Minimum cetane index of 40.

- (2) Maximum aromatic content of 35 volume percent.

[40 CFR 1090.305(b) & (c), Subpart D]

NSPS Subpart IIII Compliance Requirements

- 25.7. For EU IDs 16 and 17, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]

- a. You must do all of the following, except as permitted under Condition 25.7.c

[40 CFR 60.4211(a), Subpart IIII]

- (i) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - (ii) Change only those emission-related settings that are permitted by the manufacturer; and
 - (iii) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

[40 CFR 60.4211(a)(1) through (3), Subpart IIII]

- b. You must comply with the emission standards in Conditions 25.3 and 25.4 by purchasing an engine certified to the emission standards in Conditions 25.3 and 25.4 for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition 25.7.c.

[40 CFR 60.4211(c), Subpart IIII]

- c. 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 III]

- (i) You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

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

NSPS Subpart III Test Methods and Other Procedures

- 25.8. For EU IDs 16 and 17, the Permittee must conduct performance tests pursuant to NSPS Subpart III according to 40 CFR 60.4212(a) through (c).

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(3)(i)]

[40 CFR 60.4212, Subpart III]

NSPS Subpart III Recordkeeping Requirements

- 25.9. For EU ID 16, the Permittee must keep records of the following information:

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(3)(ii)]

[40 CFR 60.4214(a)(2), Subpart III]

- a. All notifications submitted to comply with NSPS Subpart III and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

[40 CFR 60.4214(a)(2)(i) through (iii), Subpart III]

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

NESHAP Subpart A – General Provisions

- 26. NESHAP Subpart A Requirements.** The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in

26.1. Table 8 to NESHAP Subpart ZZZZ for EU IDs 7B, 10, 14, and 15, and

[18 AAC 50.040(c)(1), (23), & (39), 50.040(j) & 50.326(j)]

[40 CFR 71.6(a)(1)]

[40 CFR 63.1-63.15, Subpart A]

[40 CFR 63.6665 & Table 8, Subpart ZZZZ]

NESHAP Subpart ZZZZ¹⁴ – Stationary Reciprocating Internal Combustion Engines

- 27.** For EU IDs 7B, 10, and 14 through 17, the Permittee shall comply with all 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, 63.6590, & 63.6590(a), Subpart ZZZZ]

NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements

- 27.1. For EU IDs 16 and 17, the Permittee must meet the requirements of 40 CFR part 63 by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for EU IDs 16 and 17 under 40 CFR part 63.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]

[40 CFR 63.6590(c), Subpart ZZZZ]

- 27.2. For EU IDs 7B, 10, 14, and 15, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]

- a. You must meet the following requirements, except during periods of startup:

- (i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;
- (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

¹⁴ The provisions of NESHAP Subpart ZZZZ listed in Condition 27 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 these conditions.

- b. During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- c. Sources have the option to utilize an oil analysis program as described in Condition 27.4 in order to extend the specified oil change requirement in Condition 27.2.a(i).

[40 CFR 63.6603(a), 63.6625(h), & Table 2d, Item 1, Subpart ZZZZ]

NESHAP Subpart ZZZZ General Requirements

27.3. For EU IDs 7B, 10, 14, and 15, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]

- a. You must be in compliance with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.

[40 CFR 63.6605(a), Subpart ZZZZ]

- b. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605(b), Subpart ZZZZ]

NESHAP Subpart ZZZZ Monitoring, Installation, Collection, Operation, and Maintenance Requirements

- 27.4. For EU IDs 7B, 10, 14, and 15, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 27.2.a. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 27.2.a. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1) & (a)(3)(i)]

[40 CFR 63.6625(i), Subpart ZZZZ]

NESHAP Subpart ZZZZ Requirements for Demonstration of Continuous Compliance with Emission Limitations, Operating Limitations, and Other Requirements

- 27.5. For EU IDs 7B, 10, 14, and 15, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1) & (a)(3)(iii)]

- a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 27.2 according to methods specified in Condition 27.5.a(i) or 27.5.a(ii).

[40 CFR 63.6640(a), Subpart ZZZZ]

- (i) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- (ii) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[Table 6, Item 9, Subpart ZZZZ]

- b. You must also report each instance in which you did not meet the requirements in Table 8 to NESHAP Subpart ZZZZ that apply to you.

[40 CFR 63.6640(e), Subpart ZZZZ]

NESHAP Subpart ZZZZ Reporting Requirements

- 27.6. For EU IDs 7B, 10, 14, and 15, the Permittee must report all deviations as defined in NESHAP Subpart ZZZZ in the semiannual monitoring report required by Condition 60.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]
[40 CFR 63.6650(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Recording Requirements

- 27.7. For EU IDs 7B, 10, 14, and 15, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]

- a. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.

[40 CFR 63.6655(e), Subpart ZZZZ]

- b. Your records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660(a), Subpart ZZZZ]

- c. As specified in 40 CFR 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.6660(b), Subpart ZZZZ]

- d. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660(c), Subpart ZZZZ]

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subpart A – General Provisions & Subpart M – Asbestos

28. The Permittee shall comply with the applicable 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

29. **Subpart F – Recycling and Emissions Reduction.** The Permittee shall comply with the applicable 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]

30. **Subpart G – Significant New Alternatives.** The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.174 (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]

31. **Subpart H – Halon Emissions Reduction.** The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (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

32. 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).

32.1. If an owner or operator of a stationary source who is in the relevant source category determines 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 63.10(b)(3).

32.2. If a source becomes affected by an applicable subpart of 40 CFR 63, the Permittee 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).

32.3. 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

33. 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.
34. 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.
35. The permit does not convey any property rights of any sort, nor any exclusive privilege.
[18 AAC 50.326(j)(3), 50.345(a), (e), (f), & (g)]
36. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-403.
[18 AAC 50.326(j)(1), 50.400 & 50.403]
[AS 37.10.052(b) & AS 46.14.240]
37. **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 (tpy) or greater. The quantity for which fees will be assessed is the lesser of the stationary source's:
- 37.1. potential to emit of 552 tpy; or
- 37.2. 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 of 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]

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

- 38.1. 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 37.2. 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/>.
- 38.2. 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.
- 38.3. 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 in Condition 37.1.

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

39. 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)]

40. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

- 40.1. The Permittee shall keep records of
 - a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and
 - b. any additional precautions that are taken
 - (i) to address complaints described in Condition 40.1 or to address the results of Department inspections that found potential problems; and
 - (ii) to prevent future dust problems.

- 40.2. The Permittee shall report according to Condition 42.

[18 AAC 50.045(d), 50.326(j)(3), & 50.346(c)]

41. 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)]

- 42. 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.

42.1. 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 42.
- 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 42; or
 - (ii) the Department notifies the Permittee that it has found a violation of Condition 42.

42.2. 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 42; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

42.3. Reporting. The Permittee shall report as follows:

- a. With each operating report under Condition 60, 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 59.

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

43. Technology-Based Emission Standard. If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or non-routine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard¹⁵ listed in Condition 13, 14, 15, 16, 25, or 29 (refrigerants), the Permittee shall

- 43.1. take all reasonable steps to minimize levels of emissions that exceed the standard, and
- 43.2. report in accordance with Condition 59.1.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

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

- 44.1. 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
- 44.2. Include this condition in the annual certification required under Condition 61.

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

¹⁵ 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

- 45. 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)]

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

[18 AAC 50.220(b)]

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

46.2. 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.

- 47. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

47.1. 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 50.220(c)(1)(A) & 50.040(a)]
[40 CFR 60]

47.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 CFR 61.

[18 AAC 50.040(b) & 50.220(c)(1)(B)]
[40 CFR 61]

47.3. 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]

47.4. 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)]

47.5. 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]

- 47.6. Source testing for emissions of PM₁₀ 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]
- 47.7. 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)(32) & 50.220(c)(2)]
[40 CFR 63, Appendix A, Method 301]
48. **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)]
49. **Test Exemption.** The Permittee is not required to comply with Conditions 51, 52 and 53 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)]
50. **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.
- [18 AAC 50.345(a) & (l)]
51. **Test Plans.** Except as provided in Condition 49, 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 45 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.
- [18 AAC 50.345(a) & (m)]
52. **Test Notification.** Except as provided in Condition 49, 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.
- [18 AAC 50.345(a) & (n)]

- 53. Test Reports.** Except as provided in Condition 49, within 60 days after completing a source test, the Permittee shall submit one certified copy 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 56. 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) & (o)]

- 54. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 5 and 22.2, 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

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

- 55.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and
- 55.2. 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

56. 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.

- 56.1. 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)]

- 57. 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.

57.1. 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)]

- 58. 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)]

- 59. Excess Emissions and Permit Deviation Reports.** The Permittee shall report excess emissions and permit deviations as follows:

59.1. **Excess Emissions Reporting.** Except as provided in Condition 42, 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) 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 59.1.d.
- d. Report all other excess emissions not described in Conditions 59.1.a, 59.1.b, and 59.1.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 60 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 as requested to follow up an excess emissions report.

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

59.2. 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 60 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)]

59.3. 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) & (b)(3)]

60. Operating Reports. During the life of this permit¹⁶, the Permittee shall submit an operating report in accordance with Conditions 56 and 57 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.

- 60.1. 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.
- 60.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 60.1, the Permittee shall identify
 - a. the date of the excess emissions or permit deviation;
 - b. the equipment involved;
 - c. the permit condition affected;

¹⁶ *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.

- 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; or
- 60.3. When excess emissions or permit deviation reports have already been submitted under Condition 59 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.
- 60.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.3.e, 2.4.c, 6.2, and 18.7 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.
- 60.5. **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) & 50.346(b)(6)]
[40 CFR 71.6(a)(3)(iii)(A)]
- 61. **Annual Compliance Certification.** Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report in accordance with Condition 57.
 - 61.1. 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;

- 61.2. **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.
- 61.3. 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)]
62. **Emission Inventory Reporting.** The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH₃, NO_x, PM₁₀, PM_{2.5}, SO₂, VOC and lead (Pb) and lead compounds, as follows:
- 62.1. **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 tpy of NH₃, PM₁₀, PM_{2.5} or VOC; or
 - b. 2,500 tpy of CO, NO_x or SO₂.
- 62.2. **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 tons per year of actual Pb, or
 - (ii) 1,000 tpy of CO; or
 - (iii) 100 tpy of SO₂, NH₃, PM₁₀, 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 SO₂, NH₃, PM₁₀, PM_{2.5}, NO_x, or VOC; or as specified in Conditions 62.2.b(iv) through 62.2.b(viii);
 - (iv) 70 tpy of SO₂, NH₃, PM_{2.5}, NO_x, or VOC in PM_{2.5} serious nonattainment areas; or
 - (v) 70 tpy of PM₁₀ in PM₁₀ serious nonattainment areas; or
 - (vi) 50 tpy of NO_x or VOC in O₃ serious nonattainment areas; or
 - (vii) 25 tpy of NO_x or VOC in O₃ severe nonattainment areas; or

(viii) 10 tpy of NO_x or VOC in O₃ extreme nonattainment areas.

- 62.3. For reporting under Condition 62.2, the Permittee shall report the annual emissions and the required data elements under Condition 62.4 every third year for the previous calendar year as scheduled by the EPA.¹⁷..
- 62.4. For each emissions unit and the stationary source, include in the report the required data elements¹⁸ 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>.
- 62.5. 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); & 40 CFR 51, Appendix A to Subpart A]

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

- 63.1. **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 60 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.
- 63.2. **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) & 40 CFR 71.6(c)(6)]

¹⁷ 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.).

¹⁸ 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

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

- 64.1. 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;
- 64.2. 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;
- 64.3. 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
- 64.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

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

65. 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)]

66. 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:

- 66.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 66.2. 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) – (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;
- 66.3. The change shall not qualify for the shield under 40 CFR 71.6(f);
- 66.4. 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)]

67. Operational Flexibility. The Permittee may make Section 502(b)(10)¹⁹ 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):

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

67.2. 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.

67.3. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 67.

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

68. Permit Renewal. To renew this permit, the Permittee shall submit to the Department²⁰ 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)]

¹⁹ 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.

²⁰ 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

- 69.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 69.1. included and specifically identified in the permit; or
 - 69.2. determined in writing in the permit to be inapplicable.
- [18 AAC 50.326(j)(3) & 50.345(a) & (b)]
- 70.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 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
- 70.1. an enforcement action;
 - 70.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - 70.3. denial of an operating permit renewal application.
- [18 AAC 50.040(j), 326(j) & 50.345(a) & (c)]
- 71.** 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)(3) & (4) & 50.326(j)]
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]
- 72.** 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) & 50.345(a) & (d)]
- 73.** 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
- 73.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 73.2. have access to and copy any records required by the permit;
 - 73.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 73.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.
- [18 AAC 50.326(j)(3) & 50.345(a) & (h)]

- 74.** For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.

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

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.

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

- 75.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or
- 75.2. 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)]

76. 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
17	40 CFR 60.7(a)(1)	Emission unit is not subject to 40 CFR 60.4214(a).
16 & 17	40 CFR 60.7(a)(3) & (4)	Not applicable per Table 8 and 40 CFR 60.4214(a).
16 & 17	40 CFR 60.7(a)(5) through (7)	There are no opacity standards or continuous monitoring system requirements for these emission units under 40 CFR 60 Subpart IIII.
16 & 17	40 CFR 60.7(b)	Not applicable per Table 8 and 40 CFR 60.4214(a).
16 & 17	40 CFR 60.11(d)	Not an NSPS Subpart IIII requirement per Table 8.
16 & 17	40 CFR 60.11(g)	Not an NSPS Subpart IIII requirement per Table 8.
16 & 17	40 CFR 60.4211(b)(5)	The emission units are not pre-2007 model year or fire pump engines. Therefore, 40 CFR 60.4211(b) is not applicable.
17	40 CFR 60.4214(a)(1)	The emission unit is a 2014 model year engine rated at less than 2,237 kW with a displacement less than 10 liters per cylinder.
16 & 17	40 CFR 60.4214(a)(2)(iv)	The emission units are certified engines.
16 & 17	40 CFR 60.4214(b)	The emission units are not emergency engines.
7B, 10, 14, 15	Numerical CO emission limitations under 40 CFR 63 Subpart ZZZZ	The emission units meet the exemption requirements under 40 CFR 63.6603(b)(2).
18	40 CFR 63 Subpart JJJJJ	EU ID 18 is a process heater, not a boiler, and therefore not subject to NESHAP Subpart JJJJJ.

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions from 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	
Emission Unit Location				Sec		0		15	
				Min		30		45	
City		State		Zip					
Phone # (Key Contact)		Stationary Source ID Number		2					
Process Equipment		Operating Mode		3					
Control Equipment		Operating Mode		4					
Describe Emission Point/Location				5					
Height above ground level		Height relative to observer		6					
		Clinometer Reading		7					
Distance From Observer		Direction From Observer		8					
Start		End		9					
Describe Emissions & Color				10					
Start		End		11					
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read				12					
No		Yes		13					
Point in Plume at Which Opacity Was Determined				14					
Describe Plume Background		Background Color		15					
Start		Start		16					
End		End		17					
Sky Conditions:				18					
Start		End		19					
Wind Speed		Wind Direction From		20					
Start		Start		21					
End		End		22					
Ambient Temperature		Wet Bulb Temp		23					
		RH percent		24					
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From				25					
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks				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:				Certifying Organization				Observer's Affiliation:	
Title		Date		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%:				Highest 18-Consecutive -Minute Average Opacity (%)(engines and turbines only)					
In compliance with six-minute opacity limit? (Yes or No)									
Average Opacity Summary:									
Set Number	Time			Opacity			Sum	Average	Comments
	Start	End							

Section 12. Notification Form²¹

Kotzebue Power Plant	AQ0196TVP04
Stationary Source Name	Air Quality Permit No.
Kotzebue Electric Association	
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 Conditions - Complete Section 2 and Certify

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

☐ Deviation from COBC²², CO²³, or Settlement Agreement - Complete Section 2 and Certify

²¹ Revised as of August 20, 2008.

²² Compliance Order By Consent

²³ Compliance Order

(a) Was the exceedance ☐ Intermittent or ☐ Continuous

<input type="checkbox"/> Start Up/Shut Down	<input type="checkbox"/> Natural Cause (weather/earthquake/flood)
<input type="checkbox"/> Control Equipment Failure	<input type="checkbox"/> Scheduled Maintenance/Equipment Adjustments
<input type="checkbox"/> Bad fuel/coal/gas	<input type="checkbox"/> Upset Condition
<input type="checkbox"/> Other _____	

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



Identify the emissions units 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.

[illegible]

(a) **Type of Incident:** (Please check all that apply and provide the value requested, if any):

☐ Opacity _____%

☐ Venting _____(gas/scf)

☐ Control Equipment Down

☐ Fugitive Emissions

☐ Emission Limit Exceeded

☐ Marine Vessel Opacity

☐ Flaring

☐ Other: _____

(b) **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.

(c) **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)

(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: _____

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

[illegible]

Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation. Attach supporting information if necessary.

[illegible]

(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 56.)

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 56).

[18 AAC 50.346(b)(3)]