

# DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## AIR QUALITY OPERATING PERMIT

Permit No. AQ0880TVP04

Issue Date: Public Comment - October 06, 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, **Golden Valley Electric Association**, for the operation of the **Delta 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 Permit No. AQ0880MSS01 have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit No. AQ0880TVP03 expires.

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

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James R. Plosay, Manager  
Air Permits Program

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## Abbreviations and Acronyms

AAC .....	Alaska Administrative Code	NAICS.....	North American Industrial Classification System
ADEC.....	Alaska Department of Environmental Conservation	NESHAP.....	National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
AS .....	Alaska Statutes	NH <sub>3</sub> .....	ammonia
ASTM.....	American Society for Testing and Materials	NO <sub>x</sub> .....	nitrogen oxides
BACT .....	best available control technology	NSPS .....	New Source Performance Standards [as contained in 40 CFR 60]
bHp.....	brake horsepower	O <sub>2</sub> .....	oxygen
CAA or The Act.	Clean Air Act	PAL .....	plantwide applicability limitation
CDX .....	Central Data Exchange	Pb .....	lead
CEDRI.....	Compliance and Emissions Data Reporting Interface	PM <sub>2.5</sub> .....	particulate matter less than or equal to a nominal 2.5 microns in diameter
CFR .....	Code of Federal Regulations	PM <sub>10</sub> .....	particulate matter less than or equal to a nominal 10 microns in diameter
CI .....	compression ignition	ppm .....	parts per million
CO.....	carbon monoxide	ppmv, ppmvd .....	parts per million by volume on a dry basis
dscf.....	dry standard cubic foot	psia .....	pounds per square inch (absolute)
EPA .....	US Environmental Protection Agency	PSD .....	prevention of significant deterioration
EU .....	emissions unit	PTE.....	potential to emit
gph.....	gallons per hour	RICE.....	reciprocating internal combustion engine
gr/dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	SIC. ....	Standard Industrial Classification
HAPs .....	hazardous air pollutants [as defined in AS 46.14.990]	SIP.....	State Implementation Plan
hp .....	horsepower	SO <sub>2</sub> .....	sulfur dioxide
ICE .....	internal combustion engine	tph .....	tons per hour
ID .....	emissions unit identification number	tpy .....	tons per year
kPa.....	kiloPascals	VOC .....	volatile organic compound [as defined in 40 CFR 51.100(s)]
kW.....	kilowatts	VOL .....	volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
LAER .....	lowest achievable emission rate	vol% .....	volume percent
MACT .....	maximum achievable control technology [as defined in 40 CFR 63]	wt% .....	weight percent
MMBtu/hr.....	million British thermal units per hour		
MMscf.....	million standard cubic feet		
MR&R.....	monitoring, recordkeeping, and reporting		

## Section 1. Stationary Source Information

### Identification

Permittee:	Golden Valley Electric Association P.O. Box 71249 Fairbanks, AK 99707-1249
Stationary Source Name:	Delta Power Plant
Location:	64° 01' 41.2" North; 145° 43' 10.3" West
Physical Address:	MP 264.5 Richardson Highway Delta Junction, AK 99737
Owner and Operator:	Golden Valley Electric Association P.O. Box 71249 Fairbanks, AK 99707-1249
Permittee's Responsible Official:	Frank E. Perkins, Vice President of Power Supply P.O. Box 71249 Fairbanks, AK 99707-1249
Designated Agent:	Naomi Morton Knight, P.E., Environmental Officer P.O. Box 71249 Fairbanks, AK 99707-1249
Stationary Source and Building Contact:	John Kelly, Gas Turbine Plant Manager P.O. Box 71249 Fairbanks, AK 99707-1249 (907) 458-5780 <a href="mailto:jhkelly@gvea.com">jhkelly@gvea.com</a>
Fee and Permit Contact:	Naomi Morton Knight, P.E., Environmental Officer P.O. Box 71249 Fairbanks, AK 99707-1249 (907) 458-4557 <a href="mailto:nmknight@gvea.com">nmknight@gvea.com</a>
Process Description:	SIC Code: 4911- Electric Power Generation
	NAICS Code: 221112 - Fossil Fuel Electric Power Generation

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

## Section 2. Emissions Unit Inventory and Description

Emissions units listed in Table A have specific monitoring, recordkeeping, or reporting conditions in this permit. Except as noted elsewhere in the permit, emissions unit descriptions and ratings are given for identification purposes only.

**Table A - Emissions Unit Inventory**

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel	Rating/Size	Installation Date
1	Chena 6	John Brown Ltd. Gas Turbine Frame 5P SN 244461	Fuel Oil	23.1 MW	2005 <sup>3</sup>
2 <sup>1</sup>	-	Delta Detroit 12V71 Black Start Diesel Unit SN 12VA-44768	Fuel Oil	500 hp	2005 <sup>3</sup>
3 <sup>2</sup>	-	Thermo Pride Oil Fired Furnace	Fuel Oil	0.4 MMBtu/hr	2005 <sup>4</sup>

Table Notes:

- <sup>1</sup> Actual emissions are less than the significant emissions thresholds in 18 AAC 50.326(e). The emissions unit is subject to the requirements of 40 CFR 63 Subpart ZZZZ. Therefore, the unit cannot be classified as insignificant as specified in 18 AAC 50.326(d)(1)(A).
- <sup>2</sup> Potential emissions are less than the significant emissions thresholds in 18 AAC 50.326(e). The emissions unit is subject to an emission limitation in Minor Permit No. AQ0880MSS01. Therefore, the unit cannot be classified as insignificant as specified in 18 AAC 50.326(d)(1)(C).
- <sup>3</sup> Constructed in 1976.
- <sup>4</sup> Constructed in 1990.

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

## Section 3. State Requirements

### Visible Emissions Standard

1. **Industrial Process and Fuel-Burning Equipment Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 3 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

- 1.1. For EU ID 1, monitor, record, and report in accordance with Conditions 2 through 4.
- 1.2. For EU IDs 2 and 3, monitoring shall consist of an annual compliance certification under Condition 52 for the visible emissions standard based on reasonable inquiry.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]  
[40 CFR 71.6(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 replacement<sup>1</sup> during the permit term, the Permittee shall observe the exhaust of EU ID 1 for visible emissions using either the Method 9 Plan under Condition 2.3 or the Smoke/No-Smoke Plan under Condition 2.4.
  - 2.1. The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 2.5.
  - 2.2. The Permittee may for each unit elect to continue the visible emissions monitoring schedule specified in Conditions 2.3.b through 2.3.e or Conditions 2.4.b through 2.5 that remains in effect from a previous permit.
  - 2.3. **Method 9 Plan.** For all observations in this plan, observe emissions unit exhaust, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.<sup>2</sup>
    - a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhaust of EU ID 1 according to the following criteria:
      - (i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.4.

<sup>1</sup> "Replacement," as defined in 40 CFR 51.166(b)(32).

<sup>2</sup> Visible emissions observations are not required during emergency operations.

- (ii) Except as provided in Condition 2.3.a(iii), for EU ID 1, observe exhaust within six months after the effective date of this permit.
    - (iii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.<sup>3</sup> Except as provided in Condition 2.3.e, after the first Method 9 observation:
      - (A) For EU ID 1, 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.
  - 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.

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<sup>3</sup> “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.



- 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 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 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 51 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 required under Condition 51 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 50:
  - a. the results of Method 9 observations that exceed 20 percent average opacity for any six-consecutive-minute period; and

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

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

### Particulate Matter (PM) Emissions Standard

- 5. **Industrial Process and Fuel-Burning Equipment PM Emissions.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 3 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

- 5.1. For EU ID 1, monitor, record and report in accordance with Conditions 6 through 8.
- 5.2. For each of EU IDs 2 and 3, the Permittee must annually certify compliance under Condition 52 for the PM standard based on reasonable inquiry.

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

### PM MR&R

#### *Liquid Fuel-Burning Turbines*

- 6. **PM Monitoring.** The Permittee shall conduct source tests on EU ID 1, to determine the concentration of PM in the exhaust of each emissions unit as follows:
  - 6.1. If the result of any Method 9 observation conducted under Condition 2.3 for EU ID 1 is greater than the criteria of Condition 6.2.a or Condition 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 in 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 particulate matter 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. PM 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. PM 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 Condition 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 51, 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 50:
  - 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)]

### **Sulfur Compound Emissions Standard**

9. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from EU IDs 1 through 3 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<sup>4</sup>(EU IDs 1 through 3)*

10. **Sulfur Compound Emissions Monitoring and Recordkeeping.** The Permittee shall monitor and keep records as specified in Condition 13.1.

[Condition 9.1, Minor Permit AQ0880MSS01, 6/24/2005]  
[18 AAC 50.040(j) & 50.326(j)]  
[40 CFR 71.6(a)(3)]

- 10.1. If a shipment of fuel contains greater than 0.75 wt%S<sub>fuel</sub> or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 wt%S<sub>fuel</sub>, the Permittee shall calculate SO<sub>2</sub> emissions in parts per million (ppm) using either the SO<sub>2</sub> material balance calculation in Section 12 or Method 19 of 40 CFR 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a)(3).

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

11. **Sulfur Compound Emissions Reporting.** The Permittee shall report as follows:

- 11.1. If SO<sub>2</sub> emissions calculated under Condition 10.1 exceed 500 ppm, the Permittee shall report in accordance with Condition 50. When reporting under this condition, include the calculation under Condition 10.1.
- 11.2. The Permittee shall include in the operating report required by Condition 51 for each month covered by the report:
  - a. for any fuel received with a sulfur content greater than 0.75 wt%S<sub>fuel</sub>, the SO<sub>2</sub> emissions in ppm calculated under Condition 10.1.

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

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<sup>4</sup> *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.

## Preconstruction Permit <sup>5</sup> Requirements

*Owner Requested Limits (ORLs) to Avoid Stationary Source and Project Classification as PSD Major for NO<sub>x</sub> and SO<sub>2</sub>, and for Ambient Air Quality Protection*

- 12. NO<sub>x</sub> Emission Limit.** The Permittee shall limit NO<sub>x</sub> emission from EU IDs 1, 2, and 3<sup>6</sup> listed in Table A to less than 249 tons per 12 consecutive months. Monitor, record and report as follows.

[Condition 5, Minor Permit AQ0880MSS01, 6/24/2005]  
[18 AAC 50.040(j) & 50.326(j)]  
[40 CFR 71.6(a)(1)]

- 12.1. Using a dedicated continuous fuel monitoring system that is accurate within two percent, track and record the fuel consumption for EU ID 1.
- 12.2. By the 15<sup>th</sup> of each month, calculate and record the monthly NO<sub>x</sub> emissions for the prior month for EU ID 1, in tons per month using Equation 1, and add the total for the previous 11 months to get the 12 consecutive month total.

[Conditions 5.1 & 5.2, Minor Permit AQ0880MSS01, 6/24/2005]  
[40 CFR 71.6(a)(3)]

$$\text{Equation 1} \quad NO_x = HI \times EF \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

Where: NO<sub>x</sub> = NO<sub>x</sub> emissions in tons/month

HI = Total heat input in MMBtu/month; calculated by multiplying the fuel consumption in gallons/month (Condition 12.1) by 0.133021 MMBtu/gallon (the higher heating value (HHV) of the fuel)<sup>7</sup>

EF = NO<sub>x</sub> emission factor in lb/MMBtu. Use the value in Table B. Use the maximum, Department approved source test value after a test conducted as required under Condition 12.5.

**Table B - NO<sub>x</sub> Emission Factor EU ID 1**

EU ID	NO <sub>x</sub> Emission Factor
1	0.70 lb/MMBtu <sup>1</sup>

Table Notes:

<sup>1</sup> From 2/14/2006 source test.

- 12.3. Report as excess emissions under Condition 50 if the NO<sub>x</sub> emissions calculated under Condition 12.2 exceed 249 tons per 12 consecutive months.

<sup>5</sup> *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 on or after October 1, 2004.

<sup>6</sup> NO<sub>x</sub> emissions from EU IDs 2 and 3 are negligible, so are not counted in the 249 tpy limit.

<sup>7</sup> September 15, 2004 Minor Permit Application, Attachment 1, page 2 of 11.

- 12.4. Include in the operating report required under Condition 51, the monthly and 12-month rolling total NO<sub>x</sub> emissions for EU ID 1 calculated under Condition 12.2.  
[Conditions 5.4 & 5.5, Minor Permit AQ0880MSS01, 6/24/2005]  
[40 CFR 71.6(a)(3)]
- 12.5. The Permittee shall conduct a NO<sub>x</sub> source test on EU ID 1 if EU ID 1 consumes more than 2,052,737 gallons of fuel in any 12-month rolling period to update the NO<sub>x</sub> emission factor in Table B to be used in Equation 1.  
[40 CFR 71.6(a)(3) & 71.6(c)(6)]
- a. Within six months of exceeding the criteria of Condition 12.5 the Permittee shall conduct a source test in accordance with Section 6.
- (i) The test shall be conducted at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. Three 1-hour test runs are required.
  - (ii) During each test run, track and record the fuel consumption rate (gallons per hour) and intake air temperature of the emission unit.
  - (iii) Determine the emission rate in lb/MMBtu and in lb/hr using 40 CFR 60, Appendix A, Method 19. The emission rate shall be the average of the three 1-hour test runs.
  - (iv) Analyze a representative batch of fuel used during the source test, or obtain a vendor certificate for the of fuel used during the source test, to get the HHV (MMBtu/gallon) and the fuel density (lb/gal). Include the information in the source test report.
  - (v) Report the source test results as required in Condition 44.
  - (vi) After Department approval of the source test results, calculate the monthly and combined 12-month rolling NO<sub>x</sub> emissions from EU ID 1 using Equation 1 and the emission factor derived from the source test required in Condition 12.5.
13. **Fuel Sulfur Limit.** The Permittee shall not allow the sulfur content of the fuel burned in EU IDs 1 through 3 to exceed 0.2 weight percent sulfur (wt% S) at any time. Monitor, record and report as follows.  
[Condition 6, Minor Permit AQ0880MSS01, 6/24/2005]  
[18 AAC 50.040(j) & 50.326(j)]  
[40 CFR 71.6(a)(1)]
- 13.1. Obtain a certificate or receipt from the fuel supplier of the fuel sulfur content for each shipment of fuel delivered to the stationary source. If a receipt is not available from the supplier, analyze a representative sample of the fuel to determine the sulfur content using ASTM methods D129, D1266, D1552, D2622, D4294, or D4045.



- 13.2. If the sulfur content of any diesel fuel delivery exceeds 0.2 wt% S, then determine the fuel sulfur content of the fuel in the tank after delivery using Equation 2.

[Conditions 6.1 & 6.2, Minor Permit AQ0880MSS01, 6/24/2005]  
[40 CFR 71.6(a)(3)]

$$\text{Equation 2} \quad S_{TA} = \frac{(Q_D \times S_D) + (Q_{TB} \times S_{SB})}{100}$$

Where:  $Q_D$  = Quantity of **delivered** fuel, percent of total, by weight  
 $S_D$  = Sulfur content of **delivered** fuel, percent sulfur by weight  
 $Q_{TB}$  = Quantity of fuel in **tank before** delivery, percent of total, by weight  
 $S_{TB}$  = Sulfur content of **tank before** delivery, percent sulfur by weight  
 $S_{TA}$  = Sulfur content of fuel in **tank after** delivery, percent sulfur by weight

- 13.3. Report as excess emissions under Condition 50 if the fuel sulfur content in the tank after delivery exceeds 0.2 wt% S.
- 13.4. Include all records required by Conditions 13.1 and 13.2 with the operating report required by Condition 51.

[Conditions 6.3 & 6.4, Minor Permit AQ0880MSS01, 6/24/2005]  
[40 CFR 71.6(a)(3)]

### Insignificant Emissions Units

14. 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:

- 14.1. **Visible Emissions Standard:** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process or 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)]

- 14.2. **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)]

- 14.3. **Sulfur Standard:** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c)]

14.4. **General MR&R for Insignificant Emissions Units:** The Permittee shall comply with the following:

- a. Submit the compliance certifications of Condition 52 based on reasonable inquiry;
- b. Comply with the requirements of Condition 33;
- c. Report in the operating report required by Condition 51 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 have become greater than any of those thresholds; and
- d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 14.1, 14.2, and 14.3.

[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 61 National Emission Standards for Hazardous Air Pollutants

#### Subparts A & M

15. Comply with the applicable requirements set forth in 40 CFR 61.145, 61.146, 61.148, 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), 50.040(b)(2)(F), & 50.326(j)]  
[40 CFR 61 Subparts A & M, & Appendix A]

### 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants

#### Subpart A

16. For EU ID 2, comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Subpart ZZZZ, Table 8.

[18 AAC 50.040(c)(1) & (23), 50.040(j)(4) & 50.326(j)]  
[40 CFR 71.6(a)(1) & (a)(3)]  
[40 CFR 63.1 through 63.15, Subpart A]  
[40 CFR 63.6665 & Table 8, Subpart ZZZZ]

#### Subpart ZZZZ

17. **NESHAP Subpart ZZZZ Applicability.** For EU ID 2, comply with the following applicable requirements of NESHAP Subpart ZZZZ.

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

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

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

[40 CFR 71.6(a)(1)]  
[40 CFR 63.6603(a), Subpart ZZZZ]

- a. Except as provided for in Condition 17.2, change oil and filter every 500 hours of operation or annually, whichever comes first;
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Table 2d, Item 4 and Note 1; NESHAP Subpart ZZZZ]

- 17.2. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Condition 17.1.a.

[40 CFR 71.6(a)(3)]  
[40 CFR 63.6625(i) and Note 1 to Table 2d, NESHAP Subpart ZZZZ]

- 17.3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 CFR 71.6(a)(1)]  
[40 CFR 63.6625(h) & Table 2d, Subpart ZZZZ]

*NESHAP Subpart ZZZZ General Requirements*

- 17.4. You must be in compliance with the requirements under Condition 17 at all times.
- 17.5. 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 71.6(a)(1)]  
[40 CFR 63.6605(a) & (b), Subpart ZZZZ]

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

- 17.6. Demonstrate continuous compliance with each requirement in Conditions 17.1 through 17.3 by:

[40 CFR 71.6(a)(3)(i)]  
[40 CFR 63.6640(a), Subpart ZZZZ]

- a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- b. 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.

[40 CFR 63.6625(e)(3) & Table 6, Item 9; Subpart ZZZZ]

*NESHAP Subpart ZZZZ Recordkeeping Requirements*

- 17.7. If electing to comply with Condition 17.6.b, 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, including, but not limited to, the parameters analyzed, the results of the oil analysis, and the oil changes for the engine as part of the oil analysis program described in Condition 17.2.

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

[40 CFR 63.6655(e)(3) and 63.6625(i), Subpart ZZZZ]

- 17.8. Your records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).
- 17.9. 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.
- 17.10. 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 71.6(a)(3)(ii)]

[40 CFR 63.6660(a) through (c), Subpart ZZZZ]

#### *NESHAP Subpart ZZZZ Reporting Requirements*

- 17.11. Report each instance in which you did not meet the requirements in Table 8 to NESHAP Subpart ZZZZ that apply to you.

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

[40 CFR 63.6640(e), Subpart ZZZZ]

- 17.12. Report all deviations as defined in NESHAP Subpart ZZZZ in the monitoring report required by Condition 51.

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

[40 CFR 63.6650(f), Subpart ZZZZ]

### **40 CFR Part 82 Protection of Stratospheric Ozone**

#### **Subparts F & G**

- 18. Subpart F – Recycling and Emissions Reduction.** Comply with the applicable standards for recycling and emission reduction of refrigerants in 40 CFR 82 Subpart F.

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

[40 CFR 82, Subpart F]

- 19. Subpart G – Significant New Alternatives.** Comply with the applicable prohibitions 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]

#### **NESHAP Applicability Determination Requirements**

- 20. Determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 CFR 63) in accordance with the procedures in 40 CFR 63.1(b).**

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

- 20.1. An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other

requirement established under 40 CFR 63 must keep a record as specified in 40 CFR 63.10(b)(3).

[40 CFR 71.6(a)(3)(ii)]  
[40 CFR 63.1(b)(3), Subpart A]

- 21.** If an existing 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).

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

- 22.** After the effective date of any relevant standard promulgated by the Administrator under 40 CFR 63, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 CFR 63.9(b).

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

## Section 5. General Conditions

### Standard Terms and Conditions

23. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.  
[18 AAC 50.326(j)(3), 50.345(a) & (e)]
24. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
[18 AAC 50.326(j)(3), 50.345(a) & (f)]
25. The permit does not convey any property rights of any sort, nor any exclusive privilege.  
[18 AAC 50.326(j)(3), 50.345(a) & (g)]
26. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400 through 403.  
[18 AAC 50.326(j)(1), 50.400, & 50.403]  
[AS 37.10.052(b) & AS 46.14.240]
27. **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. The quantity for which fees will be assessed is the lesser of the stationary source's
- 27.1. potential to emit of 328 tpy; or
- 27.2. 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]

**28. Assessable Emission Estimates.** The Permittee shall comply as follows:

- 28.1. No later than March 31<sup>st</sup> of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 27.2. 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/>.
- 28.2. 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.
- 28.3. If the stationary source has not commenced construction or operation on or before March 31<sup>st</sup>, the Permittee may submit to the Department's Anchorage office a waiver letter certified under 18 AAC 50.205 that states the stationary source's actual annual emissions for the previous calendar year are zero tpy and provides estimates for when construction or operation will commence.
- 28.4. If no estimate or waiver letter is submitted on or before March 31<sup>st</sup> of each year, emission fees for the next fiscal year will be based on the potential to emit in Condition 27.1.

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

**29. Good Air Pollution Control Practice (GAPCP).** The Permittee shall do the following for EU IDs 1 and 3:

- 29.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 29.2. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- 29.3. keep a copy of either the manufacturer's or the operator's maintenance procedures.

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

**30. 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)]

**31. 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.

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

- 31.1. 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 31.1.a or to address the results of Department inspections that found potential problems; and
  - (ii) to prevent future dust problems.

31.2. The Permittee shall report according to Condition 33.

- 32. 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 stationary 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)]

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

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

33.1. **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 33.
- 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 33; or
  - (ii) the Department notifies the Permittee that it has found a violation of Condition 33.

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

- (i) the date, time, and nature of all emissions complaints received;
- (ii) the name of the person or persons that complained, if known;
- (iii) a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 33; and

- (iv) any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

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

- a. With each stationary source operating report under Condition 51, 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 50.

34. **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 standard<sup>8</sup> listed in Condition 18 (refrigerants),

- 34.1. take all reasonable steps to minimize levels of emissions that exceed the standard, and
- 34.2. report in accordance with Condition 50; 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)]

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<sup>8</sup> 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.

### **Open Burning Requirements**

**35. Open Burning.** If open burning is conducted at this stationary source, comply with the requirements of 18 AAC 50.065.

35.1. Keep written records to demonstrate compliance with the limitations in this condition and the requirements of 18 AAC 50.065. Submit copies of the records to the Department upon request.

35.2. Include this condition in the annual certification required under Condition 52.

[18 AAC 50.065, 50.040(j), & 50.326(j)]

[40 CFR 71.6(a)(3)]

## Section 6. General Source Testing and Monitoring Requirements

- 36. 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)]

- 37. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, conduct source testing

[18 AAC 50.220(b)]

- 37.1. at a point or points that characterize the actual discharge into the ambient air; and
- 37.2. 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.

- 38. Reference Test Methods.** Use the following test methods when conducting source testing for compliance with this permit:

- 38.1. 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]

- 38.2. 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]

- 38.3. 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]

- 38.4. 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. The Permittee may use the form in Section 11 to record data.

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

- 38.5. 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]

- 38.6. Source testing for emissions of PM<sub>2.5</sub> and PM<sub>10</sub> 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]
- 38.7. 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]
39. **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)]
40. **Test Exemption.** Compliance with Conditions 42, 43 and 44 is not required for Method 9 Plan (Condition 2.3) or Smoke/No Smoke Plan (Condition 2.4) observations.
- [18 AAC 50.345(a)]
41. **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)]
42. **Test Plans.** Except as provided in Condition 40, 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 36 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 done without resubmitting the plan.
- [18 AAC 50.345(a) & (m)]
43. **Test Notification.** Except as provided in Condition 40, 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)]

- 44. Test Reports.** Except as provided in Condition 40, 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 47. 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)]

- 45. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 5 and 14.2, 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

46. Keep all records required by this permit for at least five years after the date of collection, including:
- 46.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and
  - 46.2. Records of all monitoring required by this permit, and information about the monitoring including:
    - a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
    - b. the date, place, and time of sampling or measurements;
    - c. the date(s) analyses were performed;
    - d. the company or entity that performed the sampling and analyses;
    - e. the analytical techniques or methods used in the analyses;
    - f. the results of such analyses; and,
    - g. the operating conditions that existed at the time of sampling or measurement.

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

### Reporting Requirements

47. **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.
- 47.1. 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 50.345(a) & (j), 50.205, 50.326(j)(3), & 50.346(b)(10)]

**48. 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.

48.1. 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)]

**49. 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)]

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

50.1. **Excess Emissions Reporting.** Except as provided in Condition 33, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit as follows:

- a. In accordance with 18 AAC 50.240(c), as soon as possible, report
  - (i) excess emissions that present a potential threat to human health or safety; and
  - (ii) excess emissions that the Permittee believes to be unavoidable.
- b. In accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology-based emission standard.
- c. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 50.1.d.
- d. Report all other excess emissions not described in Conditions 50.1.a, 50.1.b, and 50.1.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 51 for excess emissions that occurred during the period covered by the report, whichever is sooner.
- e. If requested by the Department, the Permittee shall provide a more detailed written report to follow up an excess emissions report.



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

- 50.2. **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 51 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)]

- 50.3. **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 13 of this permit. The Permittee must provide all information called for by the form that is used. Submit the report in accordance with the submission instructions on the Department’s Standard Permit Conditions webpage found at <http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/>.

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

51. **Operating Reports.** During the life of this permit<sup>9</sup>, the Permittee shall submit to the Department an operating report in accordance with Conditions 47 and 48 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.

- 51.1. 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.
- 51.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 51.1, the Permittee shall identify
  - a. the date of the excess emissions or permit deviation;
  - b. the equipment involved;
  - c. the permit condition affected;
  - d. a description of the excess emissions or permit deviation; and

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<sup>9</sup> *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.

- e. any corrective action or preventive measures taken and the date(s) of such actions; or
- 51.3. when excess emissions or permit deviation reports have already been reported under Condition 50 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.
- 51.4. 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, and 6.2 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.
- 51.5. **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 50.346(b)(6) & 50.326(j)]  
[40 CFR 71.6(a)(3)(iii)(A)]
- 52. **Annual Compliance Certification.** Each year by March 31, compile and submit to the Department an annual compliance certification report according to Condition 48.
  - 52.1. 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.
  - 52.2. **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.

- 52.3. 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)]

**53. Emission Inventory Reporting.** The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH<sub>3</sub>, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and lead (Pb) and lead compounds, as follows:

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

- a. 250 tons per year (tpy) of NH<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> or VOC; or
- b. 2,500 tpy of CO, NO<sub>x</sub> or SO<sub>2</sub>.

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

- a. For stationary sources located in Attainment and Unclassifiable Areas:
  - (i) 0.5 tpy of actual Pb, or
  - (ii) 1,000 tpy of CO; or
  - (iii) 100 tpy of SO<sub>2</sub>, NH<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> or VOCs.
- b. For stationary sources located in Nonattainment Areas:
  - (i) 0.5 tpy of actual Pb, or
  - (ii) 1,000 tpy of CO or, when located in a CO nonattainment area, 100 tpy of CO; or
  - (iii) 100 tpy of SO<sub>2</sub>, NH<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, or VOC; or as specified in Conditions 53.2.b(iv) through 53.2.b(viii):
  - (iv) 70 tpy of SO<sub>2</sub>, NH<sub>3</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, or VOC in PM<sub>2.5</sub> serious nonattainment; or
  - (v) 70 tpy of PM<sub>10</sub> in PM<sub>10</sub> serious nonattainment areas; or
  - (vi) 50 tpy of NO<sub>x</sub> or VOC in O<sub>3</sub> serious nonattainment areas; or
  - (vii) 25 tpy of NO<sub>x</sub> or VOC in O<sub>3</sub> severe nonattainment areas; or
  - (viii) 10 tpy of NO<sub>x</sub> or VOC in O<sub>3</sub> extreme nonattainment areas.

- 53.3. For reporting under Condition 53.2, the Permittee shall report the annual emissions and the required data elements under Condition 53.4 every third year for the previous calendar year as scheduled by the EPA.<sup>10</sup>
- 53.4. For each emissions unit and the stationary source, include in the report the required data elements<sup>11</sup> 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>
- 53.5. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage at <http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-xv-and-xvi-submission-instructions/>.

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

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

- 54.1. **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 51 for the period covered by the report, a copy of any NSPS and NESHAPs 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 reports submitted during the reporting period.

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

- 54.2. **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 50.326(j)(4) & 50.040(j)]  
[40 CFR 71.6(c)(6)]

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<sup>10</sup> 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.).

<sup>11</sup> 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

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

- 55.1. 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;
- 55.2. 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;
- 55.3. 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
- 55.4. 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)]

**56. 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)]

**57. Off Permit Changes.** 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, may be made without a permit revision, provided that the following requirements are met:

- 57.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 57.2. 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;
- 57.3. The change shall not qualify for the shield under 40 CFR 71.6(f);
- 57.4. 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)]

**58. Operational Flexibility.** CAA Section 502(b)(10)<sup>12</sup> changes may be made within the permitted stationary source without 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): Provided, that the Permittee provides EPA and the Department with written notification no less than seven days in advance of the proposed change.

58.1. For each such change, the notification required by Condition 58 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.

58.2. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 58.

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

**59. Permit Renewal.** To renew this permit, the Permittee shall submit to the Department<sup>13</sup> an application under 18 AAC 50.326 no sooner than [18 months before] and no later than [6 months before the expiration date of this permit]. The renewal application must 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) & (j)(2)]  
[40 CFR 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

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<sup>12</sup> As defined in 40 CFR 71.2, CAA 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.

<sup>13</sup> 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

- 60.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 60.1. included and specifically identified in the permit; or
  - 60.2. determined in writing in the permit to be inapplicable.
- [18 AAC 50.326(j)(3) & 50.345(a) & (b)]
- 61.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
- 61.1. an enforcement action;
  - 61.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
  - 61.3. denial of an operating permit renewal application.
- [18 AAC 50.040(j), 50.326(j) & 50.345(a) & (c)]
- 62.** For applicable requirements with which the stationary source is in compliance, the Permittee shall continue to comply with such requirements.
- [18 AAC 50.040(j) & 50.326(j)]  
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]
- 63.** 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)]
- 64.** 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)]
- 65.** 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
- 65.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
  - 65.2. have access to and copy any records required by the permit;
  - 65.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

- 65.4. 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)]



## 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.

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

- 66.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or
- 66.2. 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)]

67. Table C 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 C becomes applicable during the permit term, 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 C - Permit Shields Granted**

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
3	40 CFR 63 Subpart DDDDD	The Delta Power Plant is not a major source of hazardous air pollutants. Per 40 CFR 63.7485, 40 CFR 63 Subpart DDDDD is not applicable.
3	40 CFR 63 Subparts A and JJJJJ	EU ID 3 is a forced air furnace and does not meet the definition of “boiler” in 40 CFR 63.11237. Per 40 CFR 63.11193, EU ID 3 is not subject to 40 CFR 63 Subpart JJJJJ and therefore is not subject to 40 CFR 63 Subpart A.
1	40 CFR 60 Subpart GG	The unit was constructed prior to the applicability date of October 3, 1977. Per 40 CFR 60.330(b), 40 CFR 60 Subpart GG does not apply.
1	40 CFR 60 Subpart KKKK	The unit has not been modified or reconstructed since the applicability date of February 18, 2005. Per 40 CFR 60.4305(a), 40 CFR 60 Subpart KKKK does not apply.
1	40 CFR 60 Subpart TTTT	EU ID 1 was constructed prior to January 8, 2014 has not been modified or reconstructed since June 18, 2014. Per 40 CFR 60.5508, 40 CFR 60 Subpart TTTT does not apply.
1	40 CFR 63 Subpart YYYY	The facility is not a major source of hazardous air pollutants. Per 40 CFR 63.6085, 40 CFR 63 Subpart

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
		YYYY is applicable to stationary combustion turbines located at a major source of HAP emissions.
2	40 CFR 60 Subparts A and IIII	EU ID 2 was constructed prior to July 11, 2005 and EU ID 2 has not been modified or reconstructed after July 11, 2005. Per 40 CFR 60.4200(a), EU ID 2 is not subject to 40 CFR 60 Subpart IIII and therefore is not subject to 40 CFR 60 Subpart A.
Stationary Source-wide	40 CFR 82 Subpart B	Stationary source and its employees do not perform service on motor vehicle air conditioners, for consideration or otherwise.
Stationary Source-wide	40 CFR 82 Subpart H	Halon is not used at the stationary source.

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

## Section 11. Visible Emissions 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” (a copy is available at <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, or “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.
- Organization: observer’s employer.
- 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	30	45	Comments			
				Min								
City	State	Zip		1								
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	Clinometer Reading		6								
Distance From Observer		Direction From Observer		7								
Start	End	Start	End	8								
Describe Emissions & Color				9								
Start				End								
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read				10								
No	Yes			11								
Point in Plume at Which Opacity Was Determined				12								
Describe Plume Background		Background Color		13								
Start		Start		14								
End		End		15								
Sky Conditions:				16								
Start		End		17								
Wind Speed		Wind Direction From		18								
Start	End	Start	End	19								
Ambient Temperature		Wet Bulb Temp		20								
		RH percent		21								
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From				22								
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks				23								
				24								
				25								
				26								
				27								
				28								
				29								
				30								
				Range of Opacity				31				
				Minimum				Maximum				
				I have received a copy of these opacity observations				Print Observer's Name				
Print Name:				Observer's Signature				Date				
Signature:								Observer's Affiliation:				
Title		Date		Certifying Organization				Date				
				Certified By:								
<b>Data Reduction:</b>												
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)												
<b>Average Opacity Summary:</b>												
Set Number	Time			Opacity					Comments			
	Start	End		Sum	Average							

## Section 12. SO<sub>2</sub> Material Balance Calculation<sup>14</sup>

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO<sub>2</sub> using the following equations:

$$\begin{aligned}
 \text{A. } &= 31,200 \times (\text{wt}\% \text{S}_{\text{fuel}}) = 31,200 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{B. } &= 0.148 \times (\text{wt}\% \text{S}_{\text{fuel}}) = 0.148 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{C. } &= 0.396 \times (\text{wt}\% \text{C}_{\text{fuel}}) = 0.396 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{D. } &= 0.933 \times (\text{wt}\% \text{H}_{\text{fuel}}) = 0.933 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{E. } &= \text{B} + \text{C} + \text{D} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{F. } &= 20.9 - (\text{vol}\%_{\text{dry}} \text{O}_{2, \text{ exhaust}}) = 20.9 - \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{G. } &= (\text{vol}\%_{\text{dry}} \text{O}_{2, \text{ exhaust}}) \div \text{F} = \underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{H. } &= 1 + \text{G} = 1 + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{I. } &= \text{E} \times \text{H} = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\
 \text{SO}_2 \text{ concentration} &= \text{A} \div \text{I} = \underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ ppm}
 \end{aligned}$$

The **wt%S<sub>fuel</sub>**, **wt%C<sub>fuel</sub>**, and **wt%H<sub>fuel</sub>** are equal to the weight percents of sulfur, carbon, and hydrogen, respectively, in the fuel. These percentages should total 100%.

The fuel weight percent of sulfur (**wt%S<sub>fuel</sub>**) is obtained pursuant to Condition 10. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (**vol%<sub>dry</sub>O<sub>2, exhaust</sub>**) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 CFR 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S<sub>fuel</sub>** = 1.0%, then enter 1.0 into the equations not 0.01 and if **vol%<sub>dry</sub>O<sub>2, exhaust</sub>** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

<sup>14</sup> Revised as of November 7, 2020

### Section 13. ADEC Notification Form<sup>15</sup>

<u>Delta Power Plant</u>	<u>AQ0880TVP04</u>
<b>Stationary Source (Facility) Name</b>	<b>Air Quality Permit Number</b>
<u>Golden Valley Electric Association</u>	
<b>Company Name</b>	

#### When did you discover the Excess Emissions/Permit Deviation?

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_ : / \_\_\_\_\_

#### When did the event/deviation occur?

Begin: Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_ : \_\_\_\_\_ (please use 24-hr clock)  
End: Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_ : \_\_\_\_\_ (please use 24-hr clock)

**What was the duration of the event/deviation:** \_\_\_\_\_ : \_\_\_\_\_ (hrs:min) or \_\_\_\_\_ days  
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

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

☐ Excess Emissions – Complete Section 1 and Certify

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

☐ Deviation from Permit Condition – Complete Section 2 and Certify

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

☐ Deviations from COBC<sup>16</sup>, CO<sup>17</sup>, or Settlement Agreement – Complete Section 2 and Certify

<sup>15</sup> Revised as of July 22, 2020.

<sup>16</sup> Compliance Order By Consent

<sup>17</sup> Compliance Order

### Section 1. Excess Emissions

- (a) **Was the exceedance** ☐ Intermittent or ☐ Continuous
- (b) **Cause of Event** (Check one that applies. Complete a separate form for each event, as applicable.):

- ☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)
- ☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment
- ☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other \_\_\_\_\_

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

- (d) **Emissions Units Involved:**  
Identify the emissions unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

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

(e) **Type of Incident** (please check only one):

- ☐ Opacity \_\_\_\_\_ %    ☐ Venting \_\_\_\_\_ gas/scf    ☐ Control Equipment Down  
☐ Fugitive Emissions    ☐ Emission Limit Exceeded    ☐ Marine Vessel Opacity  
☐ Flaring    ☐ Other \_\_\_\_\_

(f) **Corrective Actions:**

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

(g) **Unavoidable Emissions:**

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

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

**Certify Report (go to end of form)**



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

- (b) Emissions Units Involved:**

[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.

**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 47.)*

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 47).

[18 AAC 50.346(b)(3)]