DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0164TVP04 Issue Date: Public Comment - November 5, 2021
Expiration Date: Five Years

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

Upon effective date of this permit, Operating Permit AQ0164TVP03 expires.

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

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AOS .....Air Online Services
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....best available control technology
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
CFR .....Code of Federal Regulations
CAA or The Act .Clean Air Act
CO .....carbon monoxide
CO_2e .....CO_2-equivalent
DLN.....dry low NOx combustor
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU ID .....emissions unit identification number
FGR .....flue gas recirculation
gr/dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
HAP .....hazardous air pollutants [as defined in AS 46.14.990]
hp.....horsepower
kPa .....kiloPascals
LAER.....lowest achievable emission rate
LNB .....low NOx burner
lb/hr .....pounds per hour
MACT .....maximum achievable control technology [as defined in 40 CFR 63]
MMBtu/hr.....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R .....monitoring, recordkeeping, and reporting
NA .....not applicable
ng/J .....nanograms per Joule
NESHAP .....National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
NH_3.....ammonia
NOx .....nitrogen oxides
NSPS .....New Source Performance Standards [as contained in 40 CFR 60]
O & M .....operation and maintenance
O_2.....oxygen
ORL.....owner requested limit
Pb.....lead
PM .....particulate matter
PM_{10} .....particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm .....parts per million
ppmv, ppmvd.....parts per million, volumetric dry
ppmw .....parts per million by weight
psia .....pounds per square inch (absolute)
PSD .....prevention of significant deterioration
PTE.....potential to emit
SCR .....selective catalytic reduction
SIC.....Standard Industrial Classification
SPC.....Standard Permit Condition
SO_2 .....sulfur dioxide
tpy.....tons per year
VOC .....volatile organic compound [as defined in 40 CFR 51.100(s)]
VOL.....volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent
wt%S_{fuel} .....weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:		**Chugach Electric Association, Inc.** PO Box 196300 Anchorage, AK 99519-6300
Stationary Source Name:		**International Station Power Plant**
Location:		61º 9.829′ North; 149º 54.403′ West
Physical Address:		5601 Electron Drive Anchorage, AK 99518
Owner/Operator		**Chugach Electric Association, Inc.** PO Box 196300 Anchorage, AK 99519-6300
Permittee's Responsible Official:		Chrissi Radeski, Environmental Compliance Specialist PO Box 196300 Anchorage, AK 99519-6300
Designated Agent:		Lee Thibert, CEO Chugach Electric Association, Inc. PO Box 196300 Anchorage, AK 99519-6300
Stationary Source and Building Contact:		Chrissi Radeski, Environmental Compliance Specialist PO Box 196300 Anchorage, AK 99519-6300 907-762-4562 chrissi_radeski@chugachelectric.com
Fee and Permit Contact:		Chrissi Radeski, Environmental Compliance Specialist PO Box 196300 Anchorage, AK 99519-6300 907-762-4562 chrissi_radeski@chugachelectric.com
Process Description:	SIC Code	4911 - Electric Services
	NAICS Code:	221112 - Fossil Fuel Electric Power Generation

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

Section 2. Emissions Unit Inventory and Description

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

Table A - Emission Unit Inventory

EU ID	Emission Unit Name	Emission Unit Description	Fuel Type	Rating/Size	Installation or Construction Date
1	Power Unit No. 1	GE Frame 5J Turbine	Natural Gas	230 MMBtu/hr	1965
2	Power Unit No. 2	GE Frame 5J Turbine	Natural Gas	230 MMBtu/hr	1965
3	Power Unit No. 3	Westinghouse Turbine NT-310-GS	Natural Gas	276 MMBtu/hr	1969
5	Combustion Turbine 1	GE LM6000PF-25	Natural Gas	59,900 hp	2013
6	Combustion Turbine 2	GE LM6000PF-25	Natural Gas	59,900 hp	2013
7	Combustion Turbine 3	GE LM6000PF-25	Natural Gas	59,900 hp	2013
8	Combustion Turbine 4	GE LM6000PF-25	Natural Gas	59,900 hp	Not Installed
9	Duct Burner 1	Fossil Power Systems	Natural Gas	140 MMBtu/hr	2013
10	Duct Burner 2	Fossil Power Systems	Natural Gas	140 MMBtu/hr	2013
11	Duct Burner 3	Fossil Power Systems	Natural Gas	140 MMBtu/hr	2013
12	Duct Burner 4	Fossil Power Systems	Natural Gas	140 MMBtu/hr	Not Installed
13	Black start Generator Engine	Detroit Diesel 2000 G84	Diesel	1,495 hp	2013
15	Auxiliary Heater	Sigma Thermal	Natural Gas	16.7 MMBtu/hr	2013
16	Building A Standby Generator	Detroit Diesel 10637305	Diesel	175 kW	1984
17	Power Unit No. 1 Black start	Cummins V8-300-B1	Diesel	300 hp	1964
18	Power Unit No. 2 Black start	Cummins V8-300-B1	Diesel	300 hp	1965
19	Power Unit No. 3 Black start	Allis Chalmers 25000	Diesel	420 hp	1969
20	Emergency AC Generator	Cummins NT-310-GS	Diesel	310 hp	1969

[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, 5 through 13, and 15 through 20, 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 13, monitor, record, and report in accordance with Conditions 2 through 4.

1.2. For EU IDs 1 through 3, 5 through 12, and 15, burn only natural gas as fuel. In each operating report under Condition 71, indicate whether each of these emissions units burned only natural gas during the period covered by the report. Report under Condition 70 if any fuel other than natural gas is burned in any of these emissions units.

1.3. For each of EU IDs 16 through 20, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e) during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 72 with the visible emission standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 71 if any of EU IDs 16 through 20 reaches any of the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.

[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 any of Conditions 1.1 or 1.3, or in the event of replacement[1] during the permit term, the Permittee shall observe the exhaust of EU IDs 13 and 16 through 20 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.

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

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.[2]

a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhausts of EU IDs 13 and 16 through 20 according to the following criteria.

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

(ii) Except as provided in 2.3.a(iii), for EU IDs 13 and 16 through 20, observe exhaust within six months after the effective date of this permit.

(iii) For any unit replaced, observe the exhaust within 60 days of the newly installed emissions unit becoming fully operational.[3] Except as provided in Condition 2.3.e, after the first Method 9 observation.

(A) For EU ID 13, continue with the monitoring schedule of the replaced emissions unit, and

(B) For EU IDs 16 through 20, comply with Condition 1.3.

(iv) For each of EU IDs 16 through 20, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Condition 1.3; or for an emissions unit with intermittent operations, within the first 30 days during the unit's next scheduled operation

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

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 observations 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.

[2] Visible emissions observations are not required during emergency operations.
[3] "*Fully operational*" means upon completion of all functionality checks and commissioning after unit installation. "*Installation*" is complete when the unit is ready for functionality checks to begin.

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 Condition2.3.b, and continue monitoring in accordance with the Method 9 Plan.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.1. For all Method 9 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 Emissions Observation Form in Section 11, and

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

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

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

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

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

(iv) record the average opacity on the sheet.

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

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

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

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

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

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

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

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

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

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

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

4.1. In the first operating report required by Condition 71 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 71 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 smoke was 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 70:

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

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

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

Particulate Matter (PM) Emissions Standard

5. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow PM emitted from EU IDs 1 through 3, 5 through 13, and 15 through 20, 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 13, monitor, record and report in accordance with Conditions 6 through 8.

5.2. For EU IDs 1 through 3, 5 through 12, and 15, the Permittee shall comply with Condition 1.2.

5.3. For each of EU IDs 16 through 20, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e) during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 72 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 71 if any of EU IDs 16 through 20 reaches any of the significant emissions thresholds and monitor, record, and report in accordance with Conditions 6 through 8 for the remainder of the permit term for that emissions unit.

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

Particulate Matter MR&R

Liquid Fuel-Burning Engines

6. Particulate Matter Monitoring. The Permittee shall conduct source tests on EU ID 13, and EU IDs 16 through 20 (when required by Condition 5.3), to determine the concentration of particulate matter 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 any of EU IDs 13 and 16 through 20 is greater than the criteria of Condition 6.2.a or 6.2.b, the Permittee shall, within six months of that Method 9 observation, either:

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

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

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

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

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

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

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

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

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

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

7. Particulate Matter Recordkeeping. The Permittee shall comply with the following:

7.1. Keep records of the results of any source test and visible emissions observations conducted under Condition 6.

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

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

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

8.2. In each operating report under Condition 71, 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 result greater than the thresholds of Condition 6.2, if they were not already submitted.

8.3. Report in accordance with Condition 70:

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_2, from EU IDs 1 through 3, 5 through 13, and 15 through 20 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[4]

10. Sulfur Compound Monitoring and Recordkeeping. The Permittee shall monitor and keep records as follows:

10.1. Comply with either Condition 10.1.a or Condition 10.1.b:

a. For each shipment of fuel:

(i) If the fuel grade requires a sulfur content 0.5 percent by weight ($wt\%S_{fuel}$) or less, keep receipts that specify fuel grade and amount; or

(ii) If the fuel grade does not require a sulfur content 0.5 $wt\%S_{fuel}$ or less, keep receipts that specify fuel grade and amount and

(A) test the fuel for sulfur content; or

[4] *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.

(B) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent, or

b. Test the sulfur content of the fuel in each storage tank that supplies fuel to EU IDs 13 and 16 through 20 at least monthly.

10.2. Fuel testing under Condition 10.1.a or Condition 10.1.b must follow an appropriate method listed in 18 AAC 50.035(b)–(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

10.3. If a shipment of fuel contains greater than 0.75 wt%S_{fuel} or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 wt%S_{fuel}, the Permittee shall calculate SO_2 emissions in parts per million (ppm) using either the SO_2 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 Reporting. The Permittee shall report as follows:

11.1. If SO_2 emissions calculated under Condition 10.3 exceed 500 ppm, the Permittee shall report in accordance with Condition 70. When reporting under this condition, include the calculation under Condition 10.3.

11.2. The Permittee shall include in the operating report required by Condition 71 for each month covered by the report:

a. a list of the fuel grades received at the stationary source;

b. for any fuel received with a sulfur content greater than 0.5 wt%, the sulfur content of the shipment; and

c. the results of all fuel sulfur analyses conducted under Condition 10.1.a or Condition 10.1.b and documentation of the method(s) used to complete the analyses; and

d. for any fuel received with a sulfur content greater than 0.75 wt%, the calculated SO_2 emissions in ppm calculated under Condition 10.3.

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

Natural Gas[5]

12. Monitoring. The Permittee shall burn only natural gas in EU IDs 1 through 3, 5 through 12, and 15. In addition, the Permittee shall maintain a current, valid purchase contract, tariff sheet or transportation contract for natural gas fuel, specifying that the maximum total sulfur content of the fuel is 20 parts per million by volume or less.

[5] *Natural gas* is defined in 40 CFR 60.41.

13. Recordkeeping. Keep records in accordance with Condition 66 of the valid purchase contract showing that supplied natural gas meets the requirements of Condition 12 or keep records of annual fuel supplier statements demonstrating that the supplied natural gas meets the specifications of Condition 12.

14. Reporting. Report in accordance with Condition 70, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9. Include copies of the records required by Condition 13 with the operating report required by Condition 71 for the period covered by the report.

[Conditions 14.5 through 14.7, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 CFR 71.6(a)(3) & (c)(6)]

Preconstruction Permit[6] Requirements

Ambient Air Quality Protection Requirements

15. To protect the annual NO_2 and $PM_{2.5}$ ambient air quality standard and the NO_2 and PM_{10} annual ambient air quality increment, the Permittee shall

15.1. operate EU ID 13 no more than 1,000 hours per rolling 12-month period.

a. Maintain on EU ID 13 a non-resettable hour meter.

b. Monitor and record the monthly hours of operation for EU ID 13.

c. Before the end of each calendar month calculate and record the total hours of operation for EU ID 13 for the previous month, then calculate the rolling 12-month total hours of operation by adding the previous 11 months.

d. Report in the operating report submitted under Condition 71 the monthly and rolling 12-month hours of operation.

e. Notify the Department under Condition 70 should the consecutive 12-month operating hours exceed the limit in this condition.

[Condition 16, Construction Permit AQ0164CPT01, 12/20/2010]

16. To protect the 24-hr $PM_{2.5}$ ambient air quality standard, the Permittee shall

16.1. For each common exhaust stack for each turbine/duct burner pair that are installed and operated (EU IDs 5 through 8, and EU IDs 9 through 12) construct the exhaust stack to have a release point that equals or exceeds an above grade height of 38.1 meters.

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

a. Provide as-built drawings of the exhaust stacks or measurements of the release point above grade of the exhaust stacks in the operating report required under Condition 71 submitted for the period in which the turbine/duct burner pair began initial operation.

[Condition 17, Construction Permit AQ0164CPT01, 12/20/2010]

17. To protect the annual NO_2 ambient air quality standard and increment, the Permittee shall

17.1. For each turbine/duct burner pair (EU IDs 5 through 8, and EU IDs 9 through 12) comply with the NOx BACT limit shown in Table B of Condition 18 and comply with Condition 18.1.

[Condition 18, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

Best Available Control Technology (BACT) Requirements

NOx, PM, PM_{10} and $PM_{2.5}$ BACT

18. Turbine and Duct Burners BACT Limits. The Permittee shall limit the emissions from the natural gas-fired turbines and the natural gas-fired duct burners to not exceed the values shown in Table B. The Permittee shall implement the BACT controls on the natural gas-fired turbines (EU IDs 5 through 8) and the natural gas-fired duct burners (EU IDs 9 through 12) listed in Table B.

Table B – Natural Gas-Fired Turbine and Duct Burner BACT Requirements

Pollutant	EUs	BACT Control	BACT Emission Limit
NOx	5 – 8	SCR[7] and DLN[8]	5 ppmdv @ 15% O_2 (4-hr average, 70 min commencing after startup of turbine)
	9 – 12	SCR	
Total $PM/PM_{10}/PM_{2.5}$	5 – 8	Good Combustion Practices	0.0066 lb/MMBtu (3-hr average)
	9 – 12	Good Combustion Practices	7.6 lb/MMscf (3-hr average)

18.1. To show compliance with the NOx emission limit set out in Table B, the Permittee shall:

a. Install, certify, maintain, and operate a NOx continuous emissions monitoring system (CEMS) as provided in Condition 35.4. The CEMS must meet the performance specifications set forth in Condition 35.4, and it must meet the calibration and data recover requirements set forth in Condition 35.4.

[7] Selective catalytic reduction
[8] Dry low NOx burner

b. Maintain the NOx and oxygen CEMS sampling probe in each common exhaust stack on each turbine/duct burner pair. Continuously monitor and record the rolling 4-hour average NOx concentration in parts per million, dry basis, by volume (ppmdv) and oxygen concentration measurements. Correct each rolling 4-hour average NOx concentration to 15 percent O_2.

c. Record the start and end times of each start-up period for each turbine. Maintain a log to document date, time, and duration.

d. In each operating report under Condition 71, the Permittee shall attach:

(i) the maximum rolling 4-hour average NOx emission concentration corrected to 15 percent O_2 obtained from each CEMS required by Condition 18.1.a,

(ii) the date, time, and duration of each start up period for each turbine,

(iii) the date, time, duration, and rolling 4-hour average NOx emission concentrations corrected to 15 percent O_2 for any period exceeding the limit in Table B or a copy of the excess emission report filed under Condition 18.1.e,

e. If the rolling 4-hour average NOx emissions exceed the limit in Table B, the Permittee shall report as an excess emission under Condition 70.

18.2. To show ongoing compliance with the Total $PM/PM_{10}/PM_{2.5}$ limit set out in Table B, the Permittee shall keep records available for inspection, which demonstrate each turbine and duct burner is maintained in good operating condition and in accordance with Condition 49.

18.3. The Permittee shall submit a copy of the manufacturer's emission data with the first operating report submitted under Condition 71, that follows the installation of the first turbine and duct burner, or maintain and report the test results in accordance with Section 7.

[Condition 20, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

19. Black Start Generator BACT Limits. The Permittee shall limit the emissions from the diesel-fired black start generator (EU ID 13) to the values shown in Table C. The Permittee shall implement the BACT controls on EU ID 13 listed in Table C.

Table C – Diesel-Fired Black Start Generator BACT Requirements

Pollutant	EU ID	BACT Control	BACT Emission Limit
NO_X	13	Turbocharger/Aftercooler	6.4 g/kW-hr
Total $PM/PM_{10}/PM_{2.5}$	13	Good Combustion Practices	0.03 g/hp-hr

19.1. To show compliance with the NOx emission limit set out in Table C, the Permittee shall:

a. comply with the initial NOx compliance demonstration requirements in NSPS Subpart IIII, set forth in Condition 34.3.

19.2. To show ongoing compliance with the Total PM/PM_{10}/$PM_{2.5}$ emission limits set out in Table C, the Permittee shall comply with the maintenance and good combustion practices set forth in NSPS Subpart IIII as stated in Condition 34.2.

[Condition 21, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

20. Auxiliary Heater BACT Limits. The Permittee shall limit the emissions from the natural gas-fired auxiliary heater (EU ID 15) to the values shown in Table D. The Permittee shall implement the BACT controls on the natural gas-fired auxiliary heater (EU ID 15) as listed in Table D.

Table D – Natural Gas-Fired Auxiliary Heater BACT Requirements

Pollutant	EU ID	BACT Control	BACT Emission Limit
NOx	15	LNB/FGR[9]	32 lb/MMscf of fuel combusted (3-hr average)
Total PM/PM_{10}/$PM_{2.5}$	15	Good Combustion Practices	7.6 lb/MMscf (3-hr average)

20.1. To show ongoing compliance with the Total PM/PM_{10}/$PM_{2.5}$ BACT limit set out in Table D, the Permittee shall keep records available for inspection, which demonstrate EU ID 15 is maintained in good operating condition and in accordance with Condition 29.

[Conditions 22.1 & 22.4, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

Limits to Avoid PSD Modification

21. CO Limits for Turbine and Duct Burners. The Permittee shall limit the total emissions of CO from EU IDs 5 through 12 to no more than 93 tons per consecutive rolling 12-month period.

21.1. To show compliance with the CO limits in Condition 21, the Permittee shall:

a. Install and operate on each turbine/duct burner pair (EU IDs 5 through 8/EU IDs 9 through 12), a catalytic oxidation system with an efficiency of no less than 90%.

[9] Low NOx burner/flue gas recirculation

b. Install, certify, maintain, and operate a CO CEMS and conduct applicable CEMS performance tests listed in 40 CFR 60, Appendix B for each common exhaust stack for each turbine/duct burner pair (EU IDs 5 through 8/EU IDs 9 through 12). Certify test results; operate; and maintain air pollutant emissions controls and process monitoring equipment as described in this permit and in documents provided by the Permittee, listed in Section 6.

c. For each CO CEMS required by Condition 21.1, comply with each applicable monitoring system requirement as listed in 40 CFR 60.13, 60.19; 40 CFR 60, Appendix F, Quality Assurance Procedures; and the EPA Quality Assurance Handbook For Air Pollution Measurements, EPA/600 R-94/038b, effective July 1, 1997. The CEMS data assessment reports of 40 CFR 60, Appendix F, shall be prepared for each reporting period of the operating report required under Condition 71. Attach the assessment to the operating report required under Condition 71.

d. Maintain the CO CEMS sampling probe in each common exhaust stack on each turbine/duct burner pair. Continuously monitor and record 3-hour block average CO concentration in ppmdv and oxygen concentration. Calculate average CO concentration for each calendar day in ppmdv, and convert to emission rates as set out in Condition 21.1.g.

e. For each calendar day of operation, either:

(i) Continuously monitor the volume of gas fuel burned (scf_{fuel}/day) by each turbine/duct burner pair; or

(ii) Estimate fuel consumption in scf_{fuel}/day from each turbine/duct burner pair by operating time and design fuel consumption rate.

(iii) Record the volume of gas burned (scf_{fuel}/day) by each turbine/duct burner pair on a daily basis.

f. Determine or provide vendor data documenting the gross calorific value of each fuel burned by each turbine/duct burner pair (MMBtu/scf_{fuel}).

g. For each calendar day,

(i) Calculate the CO concentration in lb/$scf_{exhaust\ gas}$ for each turbine/duct burner pair as

$$C_d = (\text{CO concentration in ppmvd}) (7.27 \times 10^{-8})$$

Where:

C_d = Concentration of dry CO in lb/$scf_{exhaust\ gas}$.

(ii) Calculate the average CO emission rate (lb/MMBtu) for each calendar day, for each turbine/duct burner common exhaust stack using the methodology set out in 40 CFR 60, Appendix A, Method 20, Part 7.5.1 as follows:

$$E = C_d F_d [20.9/(20.9 - \%O_2 dry)]$$

Where:

E = CO emission rate in lb/MMBtu

F_d = Fuel Factor of applicable fuel based on a dry basis, $scf_{exhaust\ gas}$/MMBtu from Appendix A, Method 19. (Use fuel factors for the fuel as provided for in 40 CFR 60, Appendix A, Method 19, Table 19-2 or calculate the fuel F-factor using the procedures listed in 40 CFR 60 Appendix A, Method 19, Part 12.3.2.1, Eqn. 19-13.)

O_2 = percent oxygen on a dry basis, %

h. For each calendar day, calculate the CO emissions (lb) for each turbine/duct burner pair by multiplying the volume of fuel burned for the day (scf_{fuel}/day) from Condition 21.1.e, times the heating value of the fuel (MMBtu/scf_{fuel}) from Condition 21.1.f, times the daily-average CO emission rate (lb/MMBtu) from Condition 21.1.g.

i. By the end of each calendar month, calculate and record the total CO emissions (tons) for the previous month by summing the daily CO emissions from Condition 21.1.h and dividing by 2000. Calculate the total CO emissions for the previous 12 months (tons).

j. In the Operating Report described in Condition 71, report the monthly emissions from the common exhaust stack of each turbine/duct burner pair. Report the rolling 12-month total CO emissions for each 12 months ending during the reporting period.

k. If the rolling 12-month total CO emissions exceeds the limit in Condition 21 the Permittee shall report as an excess emission under Condition 70.

[Condition 23, Construction Permit AQ0164CPT01, 12/20/2010]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

Insignificant Emissions Units

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

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

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

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

[18 AAC 50.055(a)(1), (b)(1), & (c)]

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

a. Submit the compliance certifications of Condition 72 based on reasonable inquiry;

b. Comply with the requirements of Condition 53; and

c. Report in the operating report required by Condition 71 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.

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 22.1, 22.2, and 22.3.

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

Section 4. Federal Requirements

40 CFR Part 60 New Source Performance Standards (NSPS)

Subpart A – General Provisions

23. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[10] or existing facility[11] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator[12] written notification or, if acceptable to both the EPA and the Permittee, electronic notification, as follows:

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

23.1. A notification of the date that construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in complete form.

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

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

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

23.3. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include:

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change.

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

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

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

[10] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.
[11] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in 40 CFR Part 60, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.
[12] The Department defines "Administrator" in 18 AAC 50.990(2).

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

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

23.6. A notification of any proposed replacement of an existing facility, for which the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, postmarked as soon as practicable, but no less than 60 days before commencement of replacement, and including the following information:

a. name and address of the owner or operator,

b. the location of the existing facility,

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

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

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

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

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

[40 CFR 60.15(d), Subpart A]

24. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of EU IDs 5 through 12 and 15; any malfunction of the air-pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

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

25. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit excess emissions and monitoring systems performance (EEMSP)[13] report and/or summary report form (see Condition 26) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following:

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

[13] The federal EEMSP report is not the same as the state excess emission report required by Condition 70.

25.1. The magnitude of excess emissions computed in accordance with Condition 32.5, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

25.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 5 through 12; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

[40 CFR 60.7(c)(1) – (4), Subpart A]

26. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 CFR 60.7 (Section 14) for NOx monitored for EU IDs 5 through 12. The report shall be submitted semiannually, postmarked by the 30th day following the end of each six-month period, except when more frequent reporting is specifically required by an applicable subpart or the EPA as follows:

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

26.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and continuous monitoring system downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form **unless** the EEMSP report described in Condition 25 is requested, or

26.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total continuous monitoring system downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP** report described in Condition 25.

[40 CFR 60.7(d)(1) & (2), Subpart A]

27. NSPS Subpart A Recordkeeping. For EU IDs 5 through 12, the Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60, recorded in a permanent form suitable for inspection. Except as provided in 40 CFR 60.7(f)(1) and (2), the file shall be retained for at least five years, in accordance with Condition 66, following the date of such measurements, maintenance, reports and records.

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

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

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

28.1. Except as specified in 40 CFR 60.8(a)(1),(a)(2), (a)(3), and (a)(4), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by 40 CFR Part 60, and at such other times as may be required by the Administrator, the Permittee shall conduct performance test(s) and furnish EPA and the Department a written report of the results of such performance test(s).

[40 CFR 60.8(a), Subpart A]

28.2. Conduct source tests and reduce data in accordance with the test methods and procedures contained in each applicable subpart except as identified in 40 CFR 60.8(b). Provide the Department copies of any EPA waivers or approvals of alternative methods.

[40 CFR 60.8(b), Subpart A]

28.3. Conduct source tests under conditions specified by the Administrator to be based on representative performance of EU IDs 5 through 12. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c), Subpart A]

28.4. Provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the Permittee shall notify the EPA and the Department as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

[40 CFR 60.8(d), Subpart A]

28.5. Provide or cause to be provided, performance testing facilities as follows:

a. Sampling ports adequate for test methods applicable to EU IDs 5 through 12 and 15. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

b. Safe sampling platform(s),

c. Safe access to sampling platform(s), and

d. Utilities for sampling and testing equipment.

[40 CFR 60.8(e), Subpart A]

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

a. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

b. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator’s approval, be determined using the arithmetic mean of the results of the two other runs.

c. Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in 40 CFR 60.8(f)(2)(i) through (vi).

[40 CFR 60.8(f), Subpart A]

29. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 5 through 12 and 15 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 5 through 12 and 15.

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

30. NSPS Subpart A Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of the standards set forth in Condition 35, nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 5 through 12 and 15 would have been in compliance with applicable requirements of 40 CFR Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

31. NSPS Subpart A Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Condition 35. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

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

32. NSPS Subpart A, Monitoring. For the continuous monitoring system (CMS) required under Condition 35.4, the Permittee shall:

[18 AAC 50.040(a)(1)]
[40 CFR 60.13(a) Subpart A]

32.1. Ensure that all CMS and monitoring devices are installed and operational prior to a performance test conducted under Condition 28. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

[40 CFR 60.13(b), Subpart A]

32.2. Check the zero (or low level value between zero and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with 40 CFR 60.13(d). The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in Appendix B of 40 CFR 60

[40 CFR 60.13(d)(1), Subpart A]

32.3. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 32.2, keep all continuous monitoring systems in operation continuously and as follows:

[40 CFR 60.13(e) Subpart A]

a. Complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(2) Subpart A]

32.4. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained.

[40 CFR 60.13(f), Subpart A]

32.5. Reduce data in accordance with the following:

[40 CFR 60.13(h), Subpart A]

a. Owners or operators of all continuous monitoring systems other than opacity shall reduce all data to 1-hour averages for time periods as defined in 40 CFR 60.2.

[40 CFR 60.13(h)(1), Subpart A]

b. For continuous monitoring systems other than opacity, 1-hour averages shall be computed as required in 40 CFR 60.13(h)(2)(i) through (ix), except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations.

[40 CFR 60.13(h)(2), Subpart A]

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

[40 CFR 60.13(h)(3), Subpart A]

Subpart Dc - Steam Generating Units

NSPS Subpart Dc Fuel Consumption

33. For EU ID 15 the Permittee shall record the amount of each fuel combusted during each day and maintain the records for a period of two years following the date of such record.

33.1. As an alternative to meeting the requirements of Condition 33, the owner or operator of an affected facility that combusts only natural gas to demonstrate compliance with the SO_2 standard may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

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

NSPS Subpart IIII - Compression Ignition Internal Combustion Engines

34. For EU ID 13, the Permittee shall comply with the applicable requirements for stationary compression ignition (CI) internal combustion engine (ICE) whose construction[14], modification[15], or reconstruction[16] commences after July 11, 2005.

34.1. The Permittee shall comply with the applicable provisions of 40 CFR 60 Subpart A as specified in Table 8 to Subpart IIII, and applicable provisions of Subpart IIII as specified in Conditions 34.2 through 34.4.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4200(a)(2), 60.4218 & Table 8, Subpart IIII]

34.2. The Permittee must operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those settings that are permitted by the manufacturer.

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

NSPS Subpart IIII Emission Standards

34.3. The Permittee shall comply with the applicable emission standards for stationary CI ICE in 40 CFR 60.4204(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4201(a) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4211(c), & 60.4204(b), Subpart IIII]

NSPS Subpart IIII Fuel Requirements

34.4. For EU ID 13, the Permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel with the following specifications:

a. Maximum sulfur content of 15 ppm.

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

(i) Minimum cetane index of 40.

(ii) Maximum aromatic content of 35 volume percent.

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

[14] For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
[15] As defined in 18 AAC 50.990(59).
[16] As defined in 18 AAC 50.990(88).

Subpart KKKK - Turbines

35. For EU IDs 5 through 12, the Permittee shall comply with all applicable requirements of NSPS Subpart KKKK for stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005.

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4300 & 60.4305, Subpart KKKK]

NSPS Subpart KKKK Emission Standards

35.1. For EU IDs 5 through 12, the Permittee must meet the following NOx emission limits:

[40 CFR 60.4320(a), Subpart KKKK]

a. 25 ppm at 15 percent O_2 or 150 nanograms per Joule (ng/J) of useful output (1.2 pounds per megawatt-hour (lb/MWh)), or

b. 96 ppm at 15 percent O_2 or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75 percent of peak load, or operating at ambient temperatures less than 0 °F.

[Table 1, Subpart KKKK]

35.2. For EU IDs 5 through 12, the Permittee must comply with either Condition 35.2.a or 35.2.b

[40 CFR 60.4330(a), Subpart KKKK]

a. You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt (lb/MWh)) gross output, or

b. You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2 /J (0.060 lb SO_2 /MMBtu) heat input.

[40 CFR 60.4330(a)(1) & (2), Subpart KKKK]

NSPS Subpart KKKK General Compliance Requirements

35.3. For EU IDs 5 through 12, the Permittee shall comply with the following:

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

a. You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[40 CFR 60.4333(a), Subpart KKKK]

NSPS Subpart KKKK Monitoring Requirements for NO_X Emissions

35.4. For EU IDs 5 through 12, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]
[40 CFR 60.4340(b), Subpart KKKK]

a. Install, certify, maintain, and operate a continuous emissions monitoring system (CEMS) consisting of a NOx monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NOx emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu).

b. For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and

c. For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and

[40 CFR 60.4335(b)(1) through (3), Subpart KKKK]

d. Each NOx diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B of 40 CFR 60, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F of 40 CFR 60 is not required. Alternatively, a NOx diluent CEMS that is installed and certified according to Appendix A of Part 75 of 40 CFR 60 Subpart KKKK is acceptable for use. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

e. As specified in 40 CFR 60.13(e)(2), during each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOx emission rate for the hour.

f. Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR part 75 are acceptable for use under NSPS Subpart KKKK.

g. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

h. The owner or operator shall develop and keep on-site a quality assurance plan for all of the continuous monitoring equipment described in Conditions 35.4.d, 35.4.f and 35.4.g. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the quality assurance program and plan described in section 1 of appendix B to 40 CFR Part 75.

[40 CFR 60.4345 (a) through (e), Subpart KKKK]

i. For purposes of identifying excess emissions:

[40 CFR 60.4350, Subpart KKKK]

(i) All CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h).

(ii) For each unit operating hour in which a valid hourly average, as described in Condition 35.4.e, is obtained for both NOx and diluent monitors, the data acquisition and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in Appendix A of Part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2(as applicable) may be used in the emission calculations.

(iii) Correction of measured NOx concentrations to 15 percent O_2 is not allowed.

[40 CFR 60.4350(a) through (c), Subpart KKKK]

(iv) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

[40 CFR 60.4350(e), Subpart KKKK]

(v) Calculate the hourly average NOx emission rates, in units of the emission limits under Condition 35.1, using ppm for units complying with the concentration limit or equations 1 through 3 under 40 CFR 60.4350(f) for units complying with the output based standard.

[40 CFR 60.4350(f) & (f)(2), Subpart KKKK]

(vi) For combined cycle and combined heat and power units with heat recovery, use the calculated hourly average emission rates from Condition 35.4.i(v) to assess excess emissions on a 30 unit operating day rolling average basis, as described in Condition 35.6.b(i).

[40 CFR 60.4350(h), Subpart KKKK]

NSPS Subpart KKKK Monitoring Requirements for SO_2 Emissions

35.5. For EU IDs 6 and 7, the Permittee shall comply with the following:

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

a. You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO_2/MMBtu) heat input for units located in continental areas. You must use one of the following sources of information to make the required demonstration:

[40 CFR 60.4365, Subpart KKKK]

(i) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas; or

(ii) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR part 75 is required.

[40 CFR 60.4365(a) & (b), Subpart KKKK]

NSPS Subpart KKKK Reporting Requirements

35.6. For EU IDs 5 through 12, the Permittee shall comply with the following:

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

a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur all reports required under 40 CFR 60.7(c), report in accordance with Conditions 25 and 26. Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

[40 CFR 60.4375(a) & 60.4395, Subpart KKKK]

b. For the purpose of reports required under Condition 25, periods of excess emissions and monitor downtime that must be reported are defined as follows:

(i) An excess emission for any unit is when the 4-hour or 30-day rolling average NOx emission rate exceeds the applicable emission limit in Condition 35.1. For the purposes of this sub-condition, a "4-hour rolling average NOx emission rate" is the arithmetic average of the average NOx emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three operating hour average NOx emission rates immediately preceding that operating hour. Calculate the rolling average if a valid NOx emission rate is obtained for at least 3 of the 4 hours. For the purposes of this condition, a "30-day rolling average NOx emission rate" is the arithmetic average of all hourly NOx emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated for each operating day as the average of all hourly NOx emissions rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours.

(ii) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOx concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

(iii) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

[40 CFR 60.4380(b)(1)–(3), Subpart KKKK]

Note: Condition 35.6.b(iii) does not include the BACT limit, it is only referring to the standards under 40 CFR 60 Subpart KKKK.

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

NESHAP Subpart A – General Provisions

36. NESHAP Subpart A Applicability. The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6665 & Table 8, Subpart ZZZZ]

NESHAP Subpart ZZZZ[17] – Stationary Reciprocating Internal Combustion Engines

37. The Permittee shall comply with the applicable requirements of NESHAP Subpart ZZZZ for new[18] and existing[19] stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6585, 63.6590, & 63.6595(a), Subpart ZZZZ]

37.1. For EU ID 13, the Permittee must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines. No further requirements apply for EU ID 13 under 40 CFR Part 63.

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

37.2. For EU IDs 16 through 20, the Permittee must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6595(a) & (a)(1), Subpart ZZZZ]

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

37.3. For EU ID 16, the Permittee shall comply with the following:

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

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

(i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;

[17] The provisions of NESHAP Subpart ZZZZ listed in Condition 37 are current as amended through December 4, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[18] In accordance with 40 CFR 63.6590(a)(2)(iii), a stationary RICE located at an area source of HAP emissions is *new* if you commenced construction of the stationary RICE on or after June 12, 2006.

[19] In accordance with 40 CFR 63.6590(a)(1)(iii), a stationary RICE located at an area source of HAP emissions is *existing* if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

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

37.4. For EU IDs 17 through 20, the Permittee shall comply with the following:

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

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

(i) Change oil and filter every 500 hours of operation or annually, whichever comes first;

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 CFR 63.6603(a), & Table 2d, Item 4, Subpart ZZZZ]

37.5. For EU IDs 16 through 20, 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.

37.6. Sources have the option to utilize an oil analysis program as described in Condition 37.10.b in order to extend the specified oil change requirement in Conditions 37.3.a(i) and 37.4.a(i).

[18 AAC 50.040(c)(23)), (j)(4) & 50.326(j)]
[40 CFR 63.6625(h), & (i), & Table 2d, Subpart ZZZZ]

37.7. For EU ID 20, the Permittee shall comply with the following:

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

a. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Conditions 37.3.a and 37.4.a, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[Table 2d, Item 4, Subpart ZZZZ]

NESHAP Subpart ZZZZ Fuel Requirements

37.8. For EU ID 20, the Permittee shall comply with the following:

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

a. Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 37.13.a(ii)(B) and 37.13.a(ii)(C) or that operates for the purpose specified in Condition 37.13.a(iii)(B), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[40 CFR 63.6604(b), Subpart ZZZZ]

NESHAP Subpart ZZZZ General Requirements

37.9. For EU IDs 16 through 20, the Permittee shall comply with the following:

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

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

[40 CFR 63.6605(a), Subpart ZZZZ]

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

[40 CFR 63.6605(b), Subpart ZZZZ]

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

37.10. For EU IDs 16 through 20, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1) & (a)(3)(i)]

a. You must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e) & (e)(3), Subpart ZZZZ]

b. You have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Conditions 37.3.a(i)37.4.a and 37.4.a(i). The oil analysis must be performed at the same frequency specified for changing the oil in Conditions 37.3.a(i)37.4.a and 37.4.a(i). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6625(i), Subpart ZZZZ]

37.11. For EU ID 20, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1) & (a)(3)(i)]

a. If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

[40 CFR 63.6625(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Demonstration of Continuous Compliance

37.12. For EU IDs 16 through 20, the Permittee shall comply with the following:

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

a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Conditions 37.3 and 37.4 according to methods specified in Condition 37.12.a(i) or 37.12.a(ii).

[40 CFR 63.6640(a), Subpart ZZZZ]

(i) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

(ii) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[Table 6, Item 9, Subpart ZZZZ]

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

[40 CFR 63.6640(e), Subpart ZZZZ]

37.13. For EU ID 20, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1) & (a)(3)(i)]

a. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in Conditions 37.13.a(i) through 37.13.a(iii). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 37.13.a(i) through 37.13.a(iii), is prohibited. If you do not operate the engine according to the requirements in Conditions 37.13.a(i) through 37.13.a(iii), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

[40 CFR 63.6640(f), Subpart ZZZZ]

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for any combination of the purposes specified in Conditions 37.13.a(ii)(A) through 37.13.a(ii)(C) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 37.13.a(iii) counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 63.6640(f)(1) & (2), Subpart ZZZZ]

(A) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(B) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(C) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 63.6640(f)(2)(i) through (iii), Subpart ZZZZ]

(iii) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 37.13.a(ii). Except as provided in Conditions 37.13.a(iii)(A) and 37.13.a(iii)(B), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)(4), Subpart ZZZZ]

(A) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(B) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 63.6640(f)(4)(i) & (ii), Subpart ZZZZ]

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(4) The power is provided only to the facility itself or to support the local transmission and distribution system.

(5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 63.6640(f)(4)(ii)(A) through (E), Subpart ZZZZ]

NESHAP Subpart ZZZZ Reporting Requirements

37.14. For EU IDs 16 through 20, the Permittee must report all deviations as defined in NESHAP Subpart ZZZZ in the semiannual monitoring report required by Condition 71.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6650(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Recordkeeping Requirements

37.15. For EU IDs 16 through 20, the Permittee shall comply with the following:

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

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

[40 CFR 63.6655(e) & (e)(3), Subpart ZZZZ]

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

[40 CFR 63.6660(a)–(c), Subpart ZZZZ]

37.16. For EU ID 20, the Permittee shall comply with the following:

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

a. You must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in Condition 37.13.a(ii)(B) or 37.13.a(ii)(C) or 37.13.a(iii)(B), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

[40 CFR 63.6655(f), Subpart ZZZZ]

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subpart A – General Provisions & Subpart M – Asbestos

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

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

40 CFR Part 82 Protection of Stratospheric Ozone

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

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

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

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

41. Subpart H – Halons Emissions Reduction. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).

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

NESHAP Applicability Determination Requirements

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

42.1. If an owner or operator of a stationary source who is in the relevant source category determines that the source is not subject to a relevant standard or other requirement established under 40 CFR 63, the owner or operator must keep a record as specified in 40 CFR 63.10(b)(3).

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

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

[18 AAC 50.040(c)(1), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 63.1(b), 63.5(b)(4), 63.6(c)(1), 63.9(b), & 63.10(b)(3), Subpart A]

Section 5. General Conditions

Standard Terms and Conditions

43. 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)]

44. 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)]

45. 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)]

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

[18 AAC 50.326(j)(1), 50.400, & 50.403]
[AS 37.10.052(b) & AS 46.14.240]

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

47.1. potential to emit of 1,802 tpy; or

47.2. 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)(3), 50.035, 50.326(j)(1) & (3), 50.346(b)(1), 50.410, & 50.420]
[40 CFR 71.5(c)(3)(ii)]

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

48.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 47.2. 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/.

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

48.3. If no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit in Condition 47.1.

[18 AAC 50.040(j)(4), 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 CFR 71.5(c)(3)(ii)]

49. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 1 through 3:

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

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

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

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

50. 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)]

51. 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.

51.1. 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 51.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

51.2. The Permittee shall report according to Condition 53.

[18 AAC 50.045(d), 50. 326(j)(3), & 50.346(c)]

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

[18 AAC 50.055(g)]

53. 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)]

53.1. **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 53.

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 53; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 53.

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

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 53; and

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

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

a. With each operating report under Condition 71, 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 70.

54. 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[20] listed in Conditions 18, 19, 20, 35 and 39 (refrigerants), the Permittee shall

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

54.2. report in accordance with Condition 70.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken.

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

Open Burning Requirements

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

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

55.2. Include this condition in the annual certification required under Condition 72.

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

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

Section 6. General Source Testing and Monitoring Requirements

56. 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)]

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

[18 AAC 50.220(b)]

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

57.2. 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.

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

58.1. 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]

58.2. 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]

58.3. 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]

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

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

58.5. 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]

58.6. Source testing for emissions of PM_{10} 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]

58.7. 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]

59. 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)]

60. Test Exemption. The Permittee is not required to comply with Conditions 62, 63 and 64 when the exhaust is observed for visible emissions by Method 9 (Condition 2.3) or Smoke/No Smoke Plan (Condition 2.4).

[18 AAC 50.345(a)]

61. 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)]

62. Test Plans. Except as provided in Condition 60, 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 56 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be performed without resubmitting the plan.

[18 AAC 50.345(a) & (m)]

63. Test Notification. Except as provided in Condition 60, 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)]

64. Test Reports. Except as provided in Condition 60, within 60 days after completing a source test, the Permittee shall submit 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 67. 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)]

65. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 5 and 22.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

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

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

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

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

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

b. the date(s) analyses were performed;

c. the company or entity that performed the analyses;

d. the analytical techniques or methods used;

e. the results of such analyses; and,

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

Reporting Requirements

67. 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.

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

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

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

[18 AAC 50.205, 50.326(j)(3), 50.345(a) & (j), & 50.346(b)(10)]
[40 CFR 71.6(a)(3)(iii)(A)]

68. 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 other submittals required by this permit. The Permittee may submit the documents electronically or by hard copy.

68.1. 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)]

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

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

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

70.1. **Excess Emissions Reporting**. Except as provided in Condition 53, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit as follows:

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

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

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

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

c. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 70.1.d.

d. Report all other excess emissions not described in Conditions 70.1.a, 70.1.b, and 70.1.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 71 for excess emissions that occurred during the period covered by the report, whichever is sooner.

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

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

70.2. **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 71 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)]

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

71. Operating Reports. During the life of this permit[21], the Permittee shall submit to the Department an operating report in accordance with Conditions 67 and 68 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.

71.1. 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.

71.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating reported under Condition 71.1, 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

[21] *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

71.3. When excess emissions or permit deviation reports have already been reported under Condition 70 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.

71.4. 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 that triggered the additional monitoring.

71.5. **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(a) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)(A)]

72. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 68.

72.1. 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;

72.2. **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.

72.3. 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)]

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

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

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

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

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

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

(i) 0.5 tpy of actual Pb, or

(ii) 1,000 tpy of CO; or

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

b. For stationary sources located in Nonattainment Areas:

(i) 0.5 tpy of actual Pb; or

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

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NOx or VOC; or as specified in Conditions 73.2.b(iv) through 73.2.b(viii);

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

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

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

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

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

73.3. For reporting under Condition 73.2, the Permittee shall report the annual emissions ant the required data elements under Condition 73.4 every third year for the previous calendar year as scheduled the EPA.[22].

73.4. For each emissions unit and the stationary source, include in the report the required data elements[23] contained within the form included in the Emission Inventory Instructions available at the Department's AOS system on the Point Source Emission Inventory web page at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory.

73.5. Submit the 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-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]

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

74.1. **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 71 for the period covered by the report, a copy of any NSPS and NESHAP reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the online reports submitted during the reporting period.

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

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

[22] 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 2023 is due April 30, 2024, etc.).

[23] 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

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

75.1. 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;

75.2. 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.

75.3. 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

75.4. 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)]

76. 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)(4)]
[40 CFR 71.6(a)(8)]

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

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

77.2. 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;

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

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

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

78. Operational Flexibility. The Permittee may make Section 502(b)(10)[24] changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions):

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

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

78.3. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 78.

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

79. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[25] an application under 18 AAC 50.326 no sooner than **<18 months before the expiration date of this permit>** and no later than **<6 months before the expiration date of this permit>**. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 CFR 71.7(b) and 71.5(a)(1)(iii).

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

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

[25] 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

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

80.1. included and specifically identified in the permit; or

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

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

81. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

81.1. an enforcement action;

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

81.3. denial of an operating permit renewal application.

[18 AAC 50.040(j), 326(j) & 50.345(a) & (c)]

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

[18 AAC 50.040(j)(3) & (4) & 50.326(j)]
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

83. 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)]

84. 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

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

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

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

84.4. 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)]

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

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

Section 10. Permit as Shield from Inapplicable Requirements

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

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

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

86.2. 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)]

87. Table E 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 E becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

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

Table E - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
1-3	40 CFR 60 Subpart GG	EU IDs 1, 2, and 3 were installed before the applicability date of October 3, 1977 and have not been modified, reconstructed, or replaced after the applicability date. The applicability of this shield ends if and when any of EU IDs 1, 2, or 3 are modified or reconstructed.
1-3	40 CFR 60 Subpart KKKK	EU IDs 1, 2, and 3 were installed before the applicability date have not been modified or reconstructed after February 18, 2005. The applicability of this shield ends if and when any of EU IDs 1, 2, or 3 are modified or reconstructed.
5-8	40 CFR 60 Subpart GG	Per 40 CFR 60.4305(b), turbines regulated under 40 CFR 60 Subpart KKKK are exempt from the requirements of Subpart GG.
5-8	40 CFR 60.4335 & 60.4355	No water or steam injection is used for NOx control.
5-8	40 CFR 60.4370 & 60.4385	Sulfur content monitoring is exempted by maintaining a valid document specifying that the maximum total sulfur content is 20 ppmv or less.
16-20	40 CFR 63.6612, 63.6615, 63.6620, 63.6630, 63.6635, and 63.6645	EU ID 16 is rated less than 300 hp, EU IDs 17–19 are black start engines, and EU ID 20 is an emergency stationary RICE under 40 CFR 63.6675.

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

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

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

Page No._____

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. SO_2 Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A. = 31,200 x [**wt%S_{fuel}**] = 31,200 x _____ = _____

B. = 0.148 x [**wt%S_{fuel}**] = 0.148 x _____ = _____

C. = 0.396 x [**wt%C_{fuel}**] = 0.396 x _____ = _____

D. = 0.933 x [**wt%H_{fuel}**] = 0.933 x _____ = _____

E. = B + C + D = _____ + _____ + _____ = _____

F. = 20.9 – [**vol%$_{dry}$O2, $_{exhaust}$**] = 20.9 – _____ = _____

G. = [**vol%$_{dry}$O2, $_{exhaust}$**] ÷ F = _____ ÷ _____ = _____

H. = 1 + G = 1 + _____ = _____

I. = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent of sulfur (wt%S_{fuel}) is obtained pursuant to Condition 10.1.a(ii) or Condition 10.1.b. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol% $_{dry}O_2$, $_{exhaust}$) 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 emissions unit load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S_{fuel} = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%$_{dry}O_2$, exhaust = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13. Notification Form

International Station Power Plant — **Stationary Source Name**

AQ0164TVP04 — **Air Quality Permit No.**

Chugach Electric Association, Inc. — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

Date: ____/____/____ Time: ____:____

When did the event/deviation occur?

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

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

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

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

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

☐ Excess Emissions - Complete Section 1 and Certify

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

☐ Deviation from Permit Conditions - Complete Section 2 and Certify

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

☐ Deviation from COBC[26], CO[27], or Settlement Agreement - Complete Section 2 and Certify

[26] Compliance Order By Consent

[27] 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
☐Scheduled Maintenance/Equipment Adjustments
☐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 (EU) Involved:**

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

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

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

- ☐ Opacity _____%
- ☐ Control Equipment Down
- ☐ Emission Limit Exceeded
- ☐ Flaring
- ☐ Other**:** _____
- ☐ Venting _____(gas/scf)
- ☐ Fugitive Emissions
- ☐ Marine Vessel Opacity

(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 (<u>go to end of form</u>)

Section 2. Permit Deviations

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

- ☐ Emissions Unit-Specific Requirements
- ☐ Stationary Source-Wide Specific Requirements
- ☐ Monitoring/Recordkeeping/Reporting Requirements
- ☐ General Source Test Requirements
- ☐ Compliance Certification Requirements
- ☐ Standard/Generally Applicable Requirements
- ☐ Insignificant Emissions Unit Requirements
- ☐ Other: _____

(b) **Emissions Units (EU) Involved:**

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

EU ID	EU Name	Permit Condition /Potential Deviation

(c) **Description of Potential Deviation:**

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

(d) **Corrective Actions:**

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence. Attach supporting information if necessary.

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 67)*

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, the report must be submitted by an authorized E-signer for the stationary source (according to Condition 67).

[18 AAC 50.346(b)(3)]

Section 14. EEMSP Summary Report

FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A-General Provisions]

Pollutant *(Circle One)*: SO_2 NO_X TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company:
Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission Data Summary [1]	**CMS Performance Summary** [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ..... ____
b. Control equipment problems ..... ____	b. Non-Monitor equipment malfunctions ..... ____
c. Process problems ..... ____	c. Quality assurance calibration ..... ____
d. Other known causes ..... ____	d. Other known causes ..... ____
e. Unknown causes ..... ____	e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... ____ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

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

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since last quarter in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ *Date*: _____

Title: _____