DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0191TVP04 Issue Date: PUBLIC COMMENT - July 14, 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, **Barrow Utilities and Electric Cooperative, Inc.**, for the operation of the **Barrow 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.

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

Upon effective date of this permit, Operating Permit No. AQ0191TVP03 expires.

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC ..... Alaska Administrative Code
ADEC ..... Alaska Department of Environmental Conservation
AS ..... Alaska Statutes
ASTM ..... American Society for Testing and Materials
BACT ..... best available control technology
bHp ..... brake horsepower
CAA or The Act ..... Clean Air Act
CDX ..... Central Data Exchange
CEDRI ..... Compliance and Emissions Data Reporting Interface
CFR ..... Code of Federal Regulations
CO ..... carbon monoxide
dscf ..... dry standard cubic foot
EPA ..... US Environmental Protection Agency
EU ..... emissions unit
gr/dscf ..... grain per dry standard cubic foot (1 pound = 7000 grains)
HAPs ..... hazardous air pollutants [as defined in AS 46.14.990]
hp ..... horsepower
ID ..... emissions unit identification number
kW ..... kilowatts
LAER ..... lowest achievable emission rate
MACT ..... maximum achievable control technology [as defined in 40 CFR 63]
MMBtu/hr ..... million British thermal units per hour
MMscf ..... million standard cubic feet
MR&R ..... monitoring, recordkeeping, and reporting
NAICS ..... North American Industrial Classification System
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_2 ..... oxygen
PAL ..... plantwide applicability limitation
Pb ..... lead
$PM_{2.5}$ ..... particulate matter less than or equal to a nominal 2.5 microns in diameter
PM_{10} ..... particulate matter less than or equal to a nominal 10 microns in diameter
ppm ..... parts per million
ppmv, ppmvd ..... parts per million by volume on a dry basis
PSD ..... prevention of significant deterioration
PTE ..... potential to emit
SIC. ..... Standard Industrial Classification
SIP ..... State Implementation Plan
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

Section 1. Stationary Source Information

Identification

Permittee:		Barrow Utilities and Electric Cooperative, Inc. P. O. Box 449 Barrow, AK 99723-0449
Stationary Source Name:		Barrow Power Plant
Location:		71º 17′ 32" North; 156º 46′ 47" West
Physical Address:		1295 Agvik St. Barrow, AK 99723
Owner and Operator:		Barrow Utilities and Electric Cooperative, Inc. P. O. Box 449 Barrow, AK 99723-0449
Permittee's Responsible Official:		Timothy W. Russell, General Manager P. O. Box 449 Barrow, AK 99723-0449
Designated Agent:		Timothy W. Russell, General Manager P. O. Box 449 Barrow, AK 99723-0449
Stationary Source and Building Contact:		James Murphy, Jr., Utility Plant Superintendent P. O. Box 449 Barrow, AK 99723-0449 (907) 852-8427 powerplant@bueci.org
Fee and Permit Contact:		Timothy W. Russell, General Manager P. O. Box 449 Barrow, AK 99723-0449 (907) 852-6167 timothy.russell@bueci.org
Process Description:	SIC Code	4931 Electric and Other Services Combined
	NAICS Code:	221112 Fossil Fuel Electric Power Generation

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

Section 2. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel	Rating/Size	Installation or Construction Date
Stationary Gas Turbines					
1	Centaur 40-T4000 GSC	Standard Gas Turbine	Natural Gas or Diesel	3,149 kW	1978
2	Centaur 40-T4000 GSC	Standard Gas Turbine	Natural Gas or Diesel	3,149 kW	1981
3a	Centaur 40-T4000 GSC	Standard Gas Turbine	Natural Gas or Diesel	3,149 kW	2020 [1]
6a	Taurus 60-T7000	Standard Gas Turbine	Natural Gas	5,957 kW	2017 [1]
7a	Taurus 60-T7300S with SoLoNOx	Standard Gas Turbine	Natural Gas or Diesel	6,174 kW	2019 [1]
Electric Generator Sets					
4	Caterpillar 3608	Reciprocating Engine	Natural Gas	2,117 hp	1994
5	Caterpillar 3608	Reciprocating Engine	Natural Gas	2,117 hp	1994
9	John Deere 6076/A030	Reciprocating Engine	Diesel	149 hp	1996
Boilers					
10a	Buderus G615/16	Boiler	Natural Gas	4.8 MMBtu/hr	2014
11a	Buderus G615/16	Boiler	Natural Gas	4.8 MMBtu/hr	2014
12	Cleaver Brooks Model 3	Boiler	Natural Gas	1.25 MMBtu/hr	1976
13	Cleaver Brooks Model 3	Boiler	Natural Gas	1.25 MMBtu/hr	1976
14	Cleaver Brooks Model 3	Boiler	Natural Gas	1.25 MMBtu/hr	1976
15a	Buderus G615/16	Boiler	Natural Gas	4.8 MMBtu/hr	2017
16a	Buderus G615/16	Boiler	Natural Gas	4.8 MMBtu/hr	2017
17a	Buderus G615/16	Boiler	Natural Gas	4.8 MMBtu/hr	2017

Table Notes:

[1] Installation date.

[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, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a 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 IDs 4, 5, 6a, 10a, 11a, 12 through 14, 15a, 16a, and 17a, burn only gas as fuel. In each operating report under Condition 66 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 65 if any fuel other than gas is burned in any of these emissions units.

1.2. For EU ID 9, 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 67 with the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 66 if EU ID 9 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.

1.3. For EU IDs 1, 2, 3a, and 7a, burn gas as the primary fuel. Monitoring for these emissions units shall consist of a statement in each operating report required under Condition 66 indicating whether each of these emissions units burned gas as the primary fuel during the period covered by the report. If any of these units operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 9 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 Condition 1.2, or in the event of replacement[1] during the permit term, the Permittee shall observe the exhaust of EU ID 9 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.

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

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 as applicable that remains in effect from a previous permit.

2.3. **Method 9 Plan.** For all observations in this plan, observe the emissions unit exhaust following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.[2]

a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhaust of EU ID 9 according to the following criteria:

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

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

(A) For any unit that replaces EU ID 9, comply with Condition 1.2.

(iii) For EU ID 9, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Condition 1.2; 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 semiannual observations

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

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

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

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

[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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.1. For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible 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 mode (load or fuel consumption rate or best estimate if unknown) on the sheet at the time opacity observations are initiated and completed;

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

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

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

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

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

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

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

(iv) record the average opacity on the sheet.

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

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

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

c. whether visible emissions are present or absent in the emission 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).

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

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

4.1. In the first operating report required in Condition 66 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 66 for the period covered by the report:

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

b. for all Method 9 Plan observations,

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

(ii) a summary to include:

(A) number of days observations were made;

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

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

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

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

4.3. Report under Condition 65:

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

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

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

Particulate Matter (PM) Emissions Standard

5. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a 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 9, 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 67 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 66 if EU ID 9 reaches any of the significant emissions thresholds and monitor, record, and report in accordance with Conditions 6 and 8.

5.2. For EU IDs 4, 5, 6a, 10a, 11a, 12 through 14, 15a, 16a, and 17a, the Permittee shall comply with Condition 1.1.

5.3. For EU IDs 1, 2, 3a, and 7a, the Permittee shall comply with Condition 1.3.

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

PM MR&R

Liquid Fuel-Burning Engines and Turbines

6. PM Monitoring. The Permittee shall conduct source tests on EU IDs 1, 2, 3a, 7a, and 9, to determine the concentration of PM in the exhaust of each emissions unit as follows:

6.1. If the result of any Method 9 observation conducted under Condition 2.3 for EU ID 9 is greater than the criteria of Conditions 6.2.a or 6.2.b, or if the Method 9 observation conducted under Condition 9.3 for EU IDs 1, 2, 3a, or 7a exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either:

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

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

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

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

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

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

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

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

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

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

7. PM Recordkeeping. The Permittee shall comply with the following:

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

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

8. PM Reporting. The Permittee shall report as follows:

8.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 6.2.a or 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 66, include:

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

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

8.3. Report in accordance with Condition 65:

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

b. if one of the criteria of Condition 6.2 was exceeded and the Permittee did not comply with either Condition 6.1.a or 6.1.b, this must be reported by the day following the day 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)]

Dual Fuel-Burning Equipment

9. The Permittee shall monitor, record, and report the monthly hours of operation of EU IDs 1, 2, 3a, and 7a when operating on a back-up liquid fuel.

9.1. For any of EU IDs 1, 2, 3a, and 7a that does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual certification under Condition 67 based on reasonable inquiry.

9.2. For any of EU IDs 1, 2, 3a, and 7a, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 9.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel; or for an emissions unit with intermittent back-up fuel use, during the next scheduled operation on back-up liquid fuel.

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

a. If the observation exceeds the standard in Condition 1, monitor as described in Condition 6.

b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year.[4]

9.4. Keep records and report in accordance with Conditions 3, 4, 7, and 8.

9.5. Report under Condition 65 if the Permittee fails to comply with any of Conditions 9.2, 9.3 or 9.4.

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

Sulfur Compound Emissions Standard

10. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a to exceed 500 ppm averaged over three hours.

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

Sulfur Compound MR&R

Fuel Oil[5](EU IDs 1, 2, 3a, 7a, and 9)

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

11.1. Comply with either Condition 11.1.a or Condition 11.1.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

(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 1, 2, 3a, 7a, and 9 at least monthly.

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

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

11.2. Fuel testing under Condition 11.1.a or Condition 11.1.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).

11.3. 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)]

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

12.1. If SO_2 emissions calculated under Condition 11.3 exceed 500 ppm, the Permittee shall report in accordance with Condition 65. When reporting under this condition, include the calculation under Condition 11.3.

12.2. The Permittee shall include in the operating report required by Condition 66 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 fuel sulfur content greater than 0.5 wt%S_{fuel}, the fuel sulfur content of the shipment;

c. the results of all fuel sulfur analyses conducted under Condition 11.1.a or Condition 11.1.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%S_{fuel}, the SO_2 emissions in ppm calculated under Condition 11.3.

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

Fuel Gas (EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 10a, 11a, 12 through 14, 15a, 16a, and 17a)

13. Sulfur Compound Monitoring. The Permittee shall either

13.1. obtain a semiannual statement from the fuel supplier of the fuel total sulfur level in ppm; or

13.2. analyze a representative sample of the fuel semiannually to determine the sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or other listed method approved in 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

14. Sulfur Compound Recordkeeping. The Permittee shall keep records of the statement from the fuel supplier or the sulfur content analysis required under Conditions 13.1 or 13.2.

15. Sulfur Compound Reporting. The Permittee shall report as follows:

15.1. Report as excess emissions, in accordance with Condition 65, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 10.

15.2. Include copies of the records required by Condition 14 with the operating report required by Condition 66 for the period covered by the report.

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

Preconstruction Permit [6] Requirements

16. Avoid classification as a Prevention of Significant Deterioration (PSD) Major Facility under 18 AAC 50.306 as follows:

[Condition 26, Construction Permit 9873-AC015, 9/7/1999]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

16.1. Operate the dual fuel-fired turbines, EU IDs 1, 2, 3a, and 7a, no greater than a combined total of 160 hours per 12-month period on distillate fuel oil.

[Condition 26.a, Construction Permit 9873-AC015, 9/7/1999]

16.2. For all fuel-burning equipment listed in Table A, do not burn a total equivalent annual heat input greater than 1,280,000 MMBtu per 12-month period as determined by the following weighting factors and heat input values:

$$1{,}280{,}000 = 1.31H_{\text{Centaurs-gas}} + 0.99H_{\text{Cat 3608}} + 9.12H_{\text{Deere}} + 1.00H_{\text{Taurus-Std}} + 0.28H_{\text{Boilers}} + 0.62H_{\text{Taurus-SoLoNOx-gas}} + 8.20H_{\text{Cat 3412C}}$$

The limit is based on calculations for a 12-month rolling period where H is the total annual heat input for an equipment group in MMBtu per 12-month period. The heat input for dual fired turbines, EU IDs 1, 2, 3a, and 7a, is based on natural gas consumption.

[Condition 26.b, Construction Permit 9873-AC015, 9/7/1999]

16.3. Monitoring and Recording:

[Condition 26.c, Construction Permit 9873-AC015, 9/7/1999]
[40 CFR 71.6(a)(3)]

a. For dual fuel-fired equipment, EU IDs 1, 2, 3a, and 7a, record the time, date, and duration when operating with liquid fuel oil.

[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.

b. Keep a delivery receipt for each shipment of distillate fuel oil and used oil fuel delivered to the facility. Test each shipment to determine the higher heating value using ASTM Test Method D 240. The Permittee may alternatively use a vendor certification documenting the higher heating value of each shipment of fuel delivered, or use a value of 137,000 BTU per gallon for calculations in Condition 16.3.e.

c. Determine the higher heating value of natural gas fuel not less than once a month using ASTM Test Method D 4891, or use a value of 1,050 BTU per scf for calculations in Condition 16.3.e.

d. Monitor and record fuel consumption for each fuel-burning equipment listed in Table A and the facility on a monthly basis. The fuel use may be estimated by measurement techniques and calculations approved by the Department. Liquid fuel flow meters and totalizers, if used, must be calibrated and certified to be accurate to ± 5%.

e. Calculate and record the monthly heat input in MMBtu per month for each fuel-burning equipment listed in Table A using fuel consumption records and the specific heat values from Condition 16.3.b through 16.3.d.

f. Add the monthly heat input for each source type for the previous 12 months. Calculate and record the equivalent annual heat input in MMBtu per 12-month period using the weighting factors as described in Condition 16.2.

[Conditions 26.c(1) through (6), Construction Permit 9873-AC015, 9/7/1999]

16.4. Reporting:

[Condition 26.d, Construction Permit 9873-AC015, 9/7/1999]
[40 CFR 71.6(a)(3)]

a. For EU IDs 1, 2, 3a, and 7a, report the hours of operation using distillate fuel oil.

b. Report the fuel delivery date, quantity and higher heating value for each shipment of distillate fuel oil received. Report the calculated monthly higher heating value for natural gas fuel.

c. Report the consumption of distillate fuel oil, used oil, and natural gas burned for each fuel-burning equipment listed in Table A and the facility on a monthly basis.

d. Report the monthly heat input for each fuel-burning equipment listed in Table A and the 12-month total equivalent annual heat input as described in Condition 16.2 and 16.3.f.

[Conditions 26.d(1) through (4), Construction Permit 9873-AC015, 9/7/1999]

e. Report in accordance with Condition 65 if the limit in Condition 16.1 is exceeded.

f. Report in accordance with Condition 65 if the limit in Condition 16.2 is exceeded.

[40 C.F.R. 71.6(a)(3)(iii) & 71.6(c)(6)]

17. Do not interfere with the attainment or maintenance of the maximum allowable increases for the ambient concentration of SO_2 as follows:

[Condition 32, Construction Permit 9873-AC015, 9/7/1999]

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

17.1. The sulfur content of fuel oil shall not exceed 0.30 percent by weight, until such a time the Department approves an ambient impact analysis showing compliance of the SO_2 increments with the use of fuel oil with a sulfur content of 0.45 percent by weight.

17.2. Determine the sulfur content of the liquid fuel in accordance with Conditions 11.1 and 11.2.

17.3. Attach to the operating report required in Condition 66, a listing of the results of the monitoring required in Condition 17.2.

[Conditions 32.a through 32.c, Construction Permit 9873-AC015, 9/7/1999]
[40 CFR 71.6(a)(1) & (3)]

17.4. Report in accordance with Condition 65 if the limit in Condition 17.1 is exceeded.

[40 C.F.R. 71.6(a)(3)(iii) & 71.6(c)(6)]

Insignificant Emissions Units

18. 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:

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

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

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

[18 AAC 50.055(b)(1)]

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

[18 AAC 50.055(c)]

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

a. Submit the compliance certifications of Condition 67 based on reasonable inquiry;

b. Comply with the requirements of Condition 48; and

c. Report in the operating report required by Condition 66 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 18.1, 18.2, and 18.3.

[18 AAC 50.040(j)(3), 50.32(j)(3), & 50.346(b)(4)]
[40 CFR 71.6(a)(1) & (3)]

Section 4. Federal Requirements

40 CFR Part 60 New Source Performance Standards

Subpart A

19. New Source Performance Standards (NSPS) Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[7] or existing facility[8] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator written notification or, if acceptable to both the Administrator[9] 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]

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

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

19.2. 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]

19.3. 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]

19.4. A notification of any proposed replacement of components 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:

[40 CFR 60.15(d), Subpart A]

[7] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.
[8] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.
[9] For Section 4 of this permit, the Department defines *Administrator* to mean the EPA Administrator and the Department.

a. the name and address of 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.

20. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. Maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 2, 3a, 6a, and 7a, any malfunction of the air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 2, 3a, 6a, and 7a is inoperative.

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

21. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. Each Permittee required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts and limits are in Condition 28.6) and-or summary report form (see Condition 22) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

21.1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), 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.

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

21.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 2, 3a, 6a, and 7a; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

[40 CFR 60.7(c)(2), Subpart A]

21.3. The date and time identifying each period during which a Continuous Monitoring System (CMS) was inoperative except for zero and span checks and the nature of any repairs or adjustments.

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

21.4. 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)(4), Subpart A]

22. NSPS Subpart A Summary Report Form. The summary report form shall contain the information and be in the format shown in figure 1 of 40 CFR 60.7 (see Attachment 1) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

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

22.1. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in Condition 21 need not be submitted unless requested by the Administrator.

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

22.2. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in Condition 21 shall both be submitted.

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

23. NSPS Subpart A Recordkeeping. Any owner or operator subject to the provisions of 40 CFR 60 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 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

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

24. NSPS Subpart A Performance (Source) Tests. Conduct source tests according to Section 6 and as required in this condition on EU IDs 3a, 6a, and 7a.

[18 AAC 50.040(a)(1)]

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

[40 CFR 60.8(a), Subpart A]

24.2. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

[40 CFR 60.8(b), Subpart A]

24.3. Tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c), Subpart A]

24.4. 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 Administrator 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]

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

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

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]

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

[40 CFR 60.8(f), Subpart A]

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. 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.

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

[40 CFR 60.8(f)(1) & (2), Subpart A]

24.7. The performance testing shall include a test method performance audit (PA) during the performance test in accordance with 40 CFR 60.8(g).

[40 CFR 60.8(g), Subpart A]

24.8. Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

[40 CFR 60.8(h), Subpart A]

24.9. Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

[40 CFR 60.8(i), Subpart A]

25. 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 2, 3a, 6a, and 7a 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 2, 3a, 6a, and 7a.

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

26. **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 28, 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 2, 3a, 6a, and 7a 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]

27. **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 28. 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]

Subpart GG

28. **NSPS Subpart GG Applicability.** For EU IDs 2, 3a, 6a, and 7a, the Permittee shall comply with the following applicable requirements of NSPS Subpart GG.

[18 AAC 50.040(a)(2)(V), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.330(a), Subpart GG]

NSPS Subpart GG Standard for NOx

28.1. For EU IDs 3a, 6a, and 7a, no owner or operator subject to the provisions of NSPS Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

[40 CFR 71.6(a)(1)]
[40 CFR 60.332(a)(2) & 60.332(c), Subpart GG]

$$STD = 0.0150\frac{(14.4)}{Y}$$

Where:

STD = allowable ISO corrected NOx emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

28.2. Stationary gas turbines are exempt from Condition 28.1 when being fired with an emergency fuel.

[40 CFR 71.6(a)(1)]
[40 CFR 60.332(k), Subpart GG]

28.3. **Monitoring.** The Permittee shall comply with the following:

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

a. **Initial Testing.** For EU ID 3a, the Permittee shall conduct a NOx and O_2 source test no later than 1 year after the effective date of this permit. If the source test results are certified at greater than 90 percent of the limit in Condition 28.1, conduct NOx and O_2 source testing annually until two consecutive tests show results certified at less than or equal to 90 percent of the limit in Condition 28.1.

b. **Periodic Testing.** For EU IDs 6a and 7a, comply with Conditions 28.3.b(i) and Condition 28.3.b(ii).

[40 CFR 71.6(a)(3)]

(i) For turbines whose latest emissions source testing was certified at less than or equal to 90 percent of the limit in Condition 28.1, the Permittee shall conduct a NOx and O_2 source test no later than five years after the most recent source test.

(ii) For turbines whose latest emissions source testing was certified at greater than 90 percent of the limit in Condition 28.1, the Permittee shall conduct NOx and O_2 source testing annually until two consecutive tests show results certified at less than or equal to 90 percent of the limit of Condition 28.1.

c. For the NOx source testing required under Condition 28.3, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(V)]
[40 CFR 71.6(a)(3)(i)]

(i) The owner or operator shall conduct the performance tests using either EPA Method 20, ASTM D6522-00, or EPA Method 7E and either EPA Method 3 or 3A in appendix A to 40 CFR 60, to determine NOx and diluent concentration.

[40 CFR 60.335(a)(1) through (3), Subpart GG]

(ii) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

(iii) Notwithstanding Condition 28.3.c(ii), the owner or operator may test at fewer points than are specified in Method 1 or Method 20 if the conditions of 40 CFR 60.335(a)(5)(i) and (ii) are met.

(iv) Other acceptable alternative reference methods and procedures are given in 40 CFR 60.335(c).

[40 CFR 60.335(a)(4) through (a)(6), Subpart GG]

(v) Each test run required under Condition 28.3.c(vi) shall be at least 21 minutes.

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

(vi) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in Condition 28.1 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

[40 CFR 60.335(b), Subpart GG]

(A) For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{Xo}) corrected to 15 percent O_2 shall be corrected to ISO standard conditions using the equation in 40 CFR 60.335(b)(1).

(B) The 3-run performance test required must be performed within 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331).

[40 CFR 60.335(b)(1) & (2), Subpart GG]

d. **Substituting Test Data.** The Permittee may perform emissions source testing on only one of a group of similarly configured turbines to satisfy the requirements of Conditions 28.3.a and 28.3.b if:

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

(i) The Permittee demonstrates that test results are less than or equal to 90 percent of the emission limit in Condition 28.1 and are projected under Condition 28.3.e to be less than or equal to 90 percent of the limit at maximum load; and

(ii) The Permittee identifies in the source test plan under Condition 57:

(A) the turbine to be tested;

(B) the other turbines in the group that are to be represented by the test; and

(C) why the turbine to be tested is representative, including that each turbine in the group

(1) is located at a stationary source operated and maintained by the Permittee;

(2) is tested under close to identical ambient conditions;

(3) is the same make and model and has identical injectors and combustor; and

(4) uses the same fuel type from the same supply origin.

e. **Load**. The Permittee shall comply with the following:

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

(i) In the source test plan state whether or not the test is scheduled when maximum NOx emissions are expected.

(ii) If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data, for each such turbine the Permittee shall provide to the Department as an attachment to the source test report

(A) additional test information from the manufacturer or from previous testing of units in the group of turbines; if using previous testing of the group of turbines, the information must include all available test data for the turbines in the group, and

(B) a demonstration based on the additional test information that projects the test results from Condition 28.3.c to predict the highest load at which emissions will comply with the limit in Condition 28.1;

(iii) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the emission limit of Condition 28.1;

(iv) the Permittee shall comply with a written finding prepared by the Department that

(A) the information is inadequate for the Department to reasonably conclude that compliance is assured at any load greater than the test load, and that the Permittee must not exceed the test load;

(B) the highest load at which the information is adequate for the Department to reasonably conclude that compliance assured is less than maximum load, and the Permittee must not exceed the highest load at which compliance is predicted, or

(C) the Permittee must retest during a period of greater expected demand on the turbine.

(v) The Permittee may revise a load limit by submitting results of a more recent test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 28.3.e(ii); the new limit is subject to any new Department finding under Condition 28.3.e(iv).

(vi) In order to perform an emission test required by Conditions 28.3.b and 28.3.c, the Permittee may operate a turbine at a higher load than that prescribed by Conditions 28.3.e(ii) through 28.3.e(iv).

(vii) For the purposes of Conditions 28.3 through 28.5, maximum load means the hourly average load that is the smallest of

(A) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions;

(B) the highest load allowed by an enforceable condition that applies to the turbine; or

(C) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.

28.4. **NOx Recordkeeping**. The Permittee shall keep records as follows:

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

a. Comply with the following for each turbine for which a demonstration under Condition 28.3.e(ii) does not show compliance with the limit of Condition 28.1 at maximum load.

(i) Keep records of load; or as approved by the Department, surrogate measurements for load and the method for calculating load from those measurements.

(ii) Records in Condition 28.4.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 28.3.e(ii)(B) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 28.3.e(iv), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

28.5. **NOx Reporting**. The Permittee shall report as follows:

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

a. In each operating report under Condition 66 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Conditions 28.3.e(ii) through 28.3.e(v)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 28.4.a during the period covered by the operating report.

b. The Permittee shall report under Condition 65 if

(i) a test result exceeds the emission standard;

(ii) testing required under Condition 28.3.c is not performed, or

(iii) a turbine was operated at a load exceeding that allowed by Conditions 28.3.e(iii) and 28.3.e(iv); exceeding a load limit is deemed a single violation rather than multiple violations of both monitoring and the underlying emission limit.

NSPS Subpart GG Standard for SO_2

28.6. For EU IDs 2, 3a, 6a, and 7a, no owner or operator subject to the provisions of NSPS Subpart GG shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

[40 CFR 71.6(a)(1)]
[40 CFR 60.333(b), Subpart GG]

28.7. **SO_2 MR&R**. For EU IDs 2, 3a, 6a, and 7a, comply with the following:

[40 CFR 71.6(a)(3)]

a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 28.7.b. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 28.7.f. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86, which measure the major sulfur compounds may be used.

[40 CFR 60.334(h)(1), Subpart GG]

b. Notwithstanding the provisions of Condition 28.7.a, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Administrator for Subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

[40 CFR 60.334(h)(3), Subpart GG]

(i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. 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 75 is required.

[40 CFR 60.334(h)(3)(i) & (ii), Subpart GG]

c. For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

[40 CFR 60.334(h)(4), Subpart GG]

d. The frequency of determining the sulfur content of the fuel shall be as follows:

[40 CFR 60.334(i), Subpart GG]

(i) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to 40 CFR 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

(ii) Gaseous fuel. For owners and operators that elect not to demonstrate sulfur content using options in Condition 28.7.b, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

(iii) Custom schedules. Notwithstanding the requirements of Condition 28.7.d(ii), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.334(i)(3)(i) and (i)(3)(ii), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 28.6.

[40 CFR 60.334(i)(1) through (3), Subpart GG]

(A) The two custom sulfur monitoring schedules set forth in 40 CFR 60.334(i)(3)(i)(A) through (D) and in 40 CFR 60.334(i)(3)(ii) are acceptable, without prior Administrative approval.

e. For each affected unit that elects to periodically determine the fuel sulfur content under NSPS Subpart GG, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with Condition 21. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Condition 21, periods of excess emissions and monitor downtime that shall be reported are defined as follows:

[40 CFR 60.334(j), Subpart GG]

(i) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under Condition 28.7:

[40 CFR 60.334(j)(2), Subpart GG]

(A) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(B) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to Condition 28.7.e(i)(A). When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.

(C) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

[40 CFR 60.334(j)(2)(i) through (iii), Subpart GG]

(ii) Emergency fuel. Each period during which an exemption provided in Condition 28.2 is in effect shall be included in the report required in Condition 21. For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.

[40 CFR 60.334(j)(4), Subpart GG]

f. Analyze the samples for the total sulfur content of the fuel using:

[40 CFR 60.335(b)(10), Subpart GG]

(i) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01; or

(ii) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

[40 CFR 60.335(b)(10)(i) & (ii), Subpart GG]

g. The fuel analyses required under Condition 28.7.f may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[40 CFR 60.335(b)(11), Subpart GG]

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subparts A & M

29. Comply with the applicable requirements set forth in 40 CFR 61.145, 61.146, 61.148, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 CFR 61, Subpart A and Appendix A.

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

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants

Subpart A

30. For EU IDs 4, 5, and 9, comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Subpart ZZZZ, Table 8.

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

Subpart ZZZZ

31. NESHAP Subpart ZZZZ Applicability. For EU IDs 4, 5, and 9, comply with the following applicable requirements of NESHAP Subpart ZZZZ.

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

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

31.1. For EU ID 9, comply with the following:

[40 CFR 71.6(a)(1)]

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

[40 CFR 63.6603(a), Subpart ZZZZ]

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

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

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

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

b. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Condition 31.1.a(i).

[40 CFR 71.6(a)(3)]
[Table 2d, NESHAP Subpart ZZZZ]

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

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

31.2. For EU IDs 4 and 5, comply with the following:

[40 CFR 71.6(a)(1)]

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

[40 CFR 63.6603(a), Subpart ZZZZ]

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

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

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

[Table 2d, Item 5; NESHAP Subpart ZZZZ]

b. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(j) in order to extend the specified oil change requirement in Condition 31.2.a(i).

[40 CFR 71.6(a)(3)]
[Table 2d, NESHAP Subpart ZZZZ]

c. 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 Condition 31.2.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.

[40 CFR 71.6(a)(3)]
[Table 2d, NESHAP Subpart ZZZZ]

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

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

NESHAP Subpart ZZZZ General Requirements

31.3. For EU IDs 4, 5, and 9, comply with the following:

a. You must be in compliance with the requirements under Condition 31 at all times.

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

[40 CFR 71.6(a)(1)]
[40 CFR 63.6605(a) & (b), Subpart ZZZZ]

NESHAP Subpart ZZZZ Initial Compliance Requirements

31.4. For EU IDs 4 and 5, you must install a non-resettable hour meter if one is not already installed.

[40 CFR 71.6(a)(1)]
[40 CFR 63.6625(f), Subpart ZZZZ]

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

31.5. For EU IDs 4, 5, and 9, demonstrate continuous compliance with each requirement in Conditions 31.1.a and 31.2.a by:

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

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

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

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

31.6. For EU IDs 4 and 5, you must operate the emergency stationary RICE according to the requirements in Conditions 31.6.a through 31.6.c. In order for the engine to be considered an emergency stationary RICE under NESHAP Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Conditions 31.6.a through 31.6.c, is prohibited. If you do not operate the engine according to the requirements in Conditions 31.6.a through 31.6.c, the engine will not be considered an emergency engine under NESHAP Subpart ZZZZ and must meet all requirements for non-emergency engines.

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

a. There is no time limit on the use of emergency stationary RICE in emergency situations.

b. You may operate your emergency stationary RICE for the purpose specified in Condition 31.6.b(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 31.6.c counts as part of the 100 hours per calendar year allowed by this paragraph.

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

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

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

c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition 31.6.b. Except as provided in Condition 31.6.c(i), the 50 hours per year for non-emergency situations cannot be used 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]

(i) 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 conditions of 40 CFR 63.6640(f)(4)(ii)(A) through (D) are met.

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

NESHAP Subpart ZZZZ Reporting Requirements

31.7. For EU IDs 4, 5, and 9, comply with the following:

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

a. 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]

b. Report all deviations as defined in NESHAP Subpart ZZZZ in the monitoring report required by Condition 66.

[40 CFR 63.6650(f), Subpart ZZZZ]

31.8. If EU ID 4 or 5 operates for the purpose specified in Condition 31.6.c(i), you must submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3).

[40 CFR 71.6(a)(3)(iii)]
[40 CFR 63.6650(h), Subpart ZZZZ]

NESHAP Subpart ZZZZ Recordkeeping Requirements

31.9. For EU IDs 4, 5, and 9, comply with the following:

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

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

[40 CFR 63.6655(e), Subpart ZZZZ]

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

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

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

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

31.10. For EU IDs 4 and 5, 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 31.6.c(i), 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 71.6(a)(3)(ii)]
[40 CFR 63.6655(f), Subpart ZZZZ]

40 CFR Part 82 Protection of Stratospheric Ozone

Subparts F, G, & H

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

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

33. **Subpart G – Significant New Alternatives.** Comply with the applicable prohibitions in 40 CFR 82.174.

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

34. **Subpart H – Halons Emissions Reduction.** Comply with the applicable prohibitions in 40 CFR 82.270.

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

NESHAP Applicability Determination Requirements

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

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

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

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

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

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

37. After the effective date of any relevant standard promulgated by the Administrator under 40 CFR 63, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator 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)(iii)]
[40 CFR 63.5(b)(4), Subpart A]

Section 5. General Conditions

Standard Terms and Conditions

38. 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)]

39. 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)]

40. 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)]

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

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

42. **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

42.1. potential to emit of 360 tpy; or

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

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

b. material balance calculations;

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

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

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

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

43.1. No later than March 31st of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 42.2. 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/.

43.2. 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.

43.3. If the stationary source has not commenced construction or operation on or before March 31st, the Permittee may submit to the Department's Anchorage office a waiver letter certified under 18 AAC 50.205 that states the stationary source's actual annual emissions for the previous calendar year are zero tpy and provides estimates for when construction or operation will commence.

43.4. If no estimate or waiver letter 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 42.1.

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

44. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 1, 10a, 11a, 12 through 14, 15a, 16a, and 17a:

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

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

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

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

45. 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)]

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

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

46.1. 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 46.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

46.2. The Permittee shall report according to Condition 48.

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

[18 AAC 50.055(g)]

48. 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)]

48.1. **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 48.

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 48; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 48.

48.2. **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 48; and

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

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

a. With each operating report under Condition 66, 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 65.

49. 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[10] listed in Condition 28 or 32 (refrigerants),

49.1. take all reasonable steps to minimize levels of emissions that exceed the standard, and

49.2. report in accordance with Condition 65; 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

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

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

50.2. Include this condition in the annual certification required under Condition 67.

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

[10] 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

51. 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)]

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

[18 AAC 50.220(b)]

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

52.2. 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.

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

53.1. 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]

53.2. 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]

53.3. 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]

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

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

53.5. 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]

53.6. Source testing for emissions of $PM_{2.5}$ and 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]

53.7. 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]

54. 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)]

55. Test Exemption. Compliance with Conditions 57, 58 and 59 is not required for Method 9 Plan (Condition 2.3) or Smoke/No Smoke Plan (Condition 2.4) observations.

[18 AAC 50.345(a)]

56. 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)]

57. Test Plans. Except as provided in Condition 55, 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 51 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

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

58. Test Notification. Except as provided in Condition 55, 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)]

59. Test Reports. Except as provided in Condition 55, within 60 days after completing a source test, the Permittee shall submit one certified copy of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in Condition 62. 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)]

60. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 5 and 18.2, 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

61. 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 71.6(a)(3)(ii)(B)]

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

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

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

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

c. the date(s) analyses were performed;

d. the company or entity that performed the analyses;

e. the analytical techniques or methods used;

f. the results of such analyses; and,

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

Reporting Requirements

62. 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 emissions 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.

62.1. 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)]

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

63.1. 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)]

64. 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)]

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

65.1. **Excess Emissions Reporting**. Except as provided in Condition 48, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit, as follows:

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

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

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

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

c. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 65.1.d.

d. Report all other excess emissions not described in Conditions 65.1.a, 65.1.b, and 65.1.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 66 for excess emissions that occurred during the period covered by the report, whichever is sooner.

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

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

65.2. **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 66 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)]

65.3. **Notification Form**. When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at the Division of Air Quality's Air Online Services (AOS) system webpage Permittee Portal option, http://dec.alaska.gov/applications/air/airtoolsweb, or, if the Permittee prefers, the form contained in Section 13 of this permit. The Permittee must provide all information called for by the form that is used. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage found at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

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

66. Operating Reports. During the life of this permit[11], the Permittee shall submit to the Department an operating report in accordance with Conditions 62 and 63 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.

66.1. 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.

66.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 66.1, the Permittee shall identify

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

b. the equipment involved;

c. the permit condition affected;

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

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

66.3. when excess emissions or permit deviation reports have already been submitted under Condition 65 during the period covered by the operating report, the Permittee shall either

[11] *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.

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.

66.4. 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 28.3.b which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report:

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

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

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

67. Annual Compliance Certification. Each year by March 31, compile and submit to the Department an annual compliance certification report according to Condition 63.

67.1. 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;

67.2. **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.

67.3. In addition, submit a copy of the report directly to 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)]

68. 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, VOCs and lead (Pb) and lead compounds, as follows:

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

a. 250 tpy of NH_3, PM_{10}, $PM_{2.5}$ or VOCs; or

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

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

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

(i) 0.5 tpy of actual Pb, or

(ii) 1,000 tpy of CO; or

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

b. For stationary sources located in Nonattainment Areas:

(i) 0.5 tpy of actual Pb; or

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

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NOx, or VOC; or as specified in Conditions 68.2.b(iv) through 68.2.b(viii);

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

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

(vi) 50 tpy of 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 O_3 extreme nonattainment areas.

68.3. For reporting under Condition 68.2, the Permittee shall report the annual emissions and the required data elements under Condition 68.4 every third year for the previous calendar year as scheduled by the EPA.[12]

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

68.4. For each emissions unit and the stationary source, include in the report the required data elements[13] contained within the form included in the Emission Inventory Instructions available at the Department's Air Online Services (AOS) system on the Point Source Emission Inventory webpage at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory

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

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

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

69.1. **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 66 for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the reports submitted during the reporting period.

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

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

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

[13] 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

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

70.1. 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;

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

70.3. 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

70.4. 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)]

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

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

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

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

72.2. 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;

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

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

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

73. Operational Flexibility. CAA Section 502(b)(10)[14] changes may be made within the permitted stationary source without a permit revision, if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions): Provided, that the Permittee provides EPA and the Department with written notification no less than seven days in advance of the proposed change.

73.1. For each such change, the notification required by Condition 73 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.

73.2. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 73.

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

74. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[15] an application under 18 AAC 50.326 no sooner than [18 months before] and no later than [6 months before the expiration date of this permit]. The renewal application must be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 CFR 71.7(b) and 71.5(a)(1)(iii).

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

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

[15] 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

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

75.1. included and specifically identified in the permit; or

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

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

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

76.1. an enforcement action;

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

76.3. denial of an operating permit renewal application.

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

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

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

78. 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)]

79. 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

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

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

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

79.4. 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)]

80. 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.

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

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

81.2. 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)]

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

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

Table B - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
10a, 11a, 12 through 14, 15a, 16a, and 17a	NSPS Subpart Dc	Natural gas-fired boiler with a heat input less than 10 MMBtu/hr.
1, 2, 3a, 6a, and7a	NSPS Subpart KKKK	Emission unit was constructed prior to the applicability date of February 18, 2005.
4 and 5	NSPS Subpart JJJJ	The Barrow Power Plant gas-fired spark ignition engine-generator sets were constructed in 1994 and predate applicability thresholds for this standard (40 CFR 60.4230).
9	NSPS Subpart IIII	EU 9 was constructed prior to the applicability date of NSPS Subpart IIII.
10a, 11a, 12 through 14, 15a, 16a, and 17a	NESHAP Subpart JJJJJJ	The Barrow Power Plant boilers are gas-fired and categorically exempted from Subpart JJJJJJ applicability [40 CFR 63.11195(e)].
Stationary source-wide	NESHAP Subpart YYYY	The Barrow Power Plant is an area source of HAPs.
Stationary source-wide	NESHAP Subpart DDDDD	The Barrow Power Plant is an area source of HAPs.

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

Section 11. Visible Emissions Observation Form

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

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

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

Page No.

Stationary Source Name	Type of Emission Unit
Emission Unit Location	
City / State / Zip	
Phone # (Key Contact)	Stationary Source ID Number
Process Equipment	Operating Mode
Control Equipment	Operating Mode
Describe Emission Point/Location	
Height above ground level / Height relative to observer / Clinometer Reading	
Distance From Observer: Start / End	Direction From Observer: Start / End
Describe Emissions & Color: Start / End	
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read: No / Yes	
Point in Plume at Which Opacity Was Determined	
Describe Plume Background: Start / End	Background Color: Start / End
Sky Conditions: Start / End	
Wind Speed: Start / End	Wind Direction From: Start / End
Ambient Temperature	Wet Bulb Temp / RH percent
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From 3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks	

Observation Date	Start Time	End Time

Min \ Sec	0	15	30	45	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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:	
Signature:	Observer's Signature / Date
	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%$_{dry}O_{2,\ exhaust}$**] = 20.9 – _____ = _____

G. = [**vol%$_{dry}O_{2,\ exhaust}$**] ÷ 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 (wt%) of sulfur is obtained pursuant to Condition 11. 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 engine 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. ADEC Notification Form[16]

Barrow Power Plant — **Stationary Source (Facility) Name**

AQ0191TVP04 — **Air Quality Permit Number.**

Barrow Utilities and Electric Cooperative, Inc. — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation?

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

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

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

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

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

☐ Excess Emissions – Complete Section 1 and Certify

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

☐ Deviation from Permit Condition – Complete Section 2 and Certify

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

☐ Deviations from COBC[17], CO[18], or Settlement Agreement – Complete Section 2 and Certify

[16] Revised as of November 7, 2020.
[17] Compliance Order By Consent
[18] Compliance Order

Section 1. Excess Emissions

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

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

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

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

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

(c) **Description**

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

(d) **Emissions Units Involved:**

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

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

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

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

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Marine Vessel Opacity

☐ Flaring ☐ Other _____

(f) **Corrective Actions:**

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

(g) **Unavoidable Emissions:**

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

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

Certify Report (<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 Involved:**

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

EU ID	EU Name	Permit Condition/ Potential Deviation

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

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

(d) **Corrective Actions:**

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

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 62.)*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at

http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

If submitted online, report must be submitted by an authorized E-signer for the stationary source (according to Condition 62).

[18 AAC 50.346(b)(3)]

Attachment 1 - 40 CFR 60 Subpart A 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: _____

Alaska Department of Environmental Conservation
Air Permits Program

PUBLIC COMMENT - July 14, 2021

Barrow Utilities and Electric Cooperative, Inc.

Barrow Power Plant

STATEMENT OF BASIS
for
Permit No. AQ0191TVP04

Prepared by Scott Faber
ADEC AQ/APP (Anchorage)

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0191TVP04.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0191TVP04 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by, Barrow Utilities and Electric Cooperative, Inc. and Barrow Utilities and Electric Cooperative, Inc. is the Permittee for the stationary source's operating permit. The standard industrial classification (SIC) code for this stationary source is 4931 Electric and Other Services Combined. The stationary source generates and distributes electric power.

EMISSIONS UNIT INVENTORY AND DESCRIPTION

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

The emissions units at the Barrow Power Plant that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0191TVP04.

Table A of Operating Permit No. AQ0191TVP04 contains information on the emissions units regulated by the permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the emissions unit rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

A summary of the Barrow Power Plant potential to emit (PTE)[1] and assessable PTE as indicated in the application and as calculated by the Department is shown in the table below.

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

Emissions	NOx	CO	PM_{10}	SO_2	VOC	CO_2e[1]	HAPs	Total[2]
PTE	244.3	94.6	8.4	5.8	20.8	76,694	1.3	373.9
Assessable PTE	244	95	0	0	21	0	0	360

Table Notes:

[1] CO_2e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.

[2] Total PTE and total assessable PTE shown in the table do not include CO_2e and HAPs.

[1] *Potential to Emit* or *PTE* means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(22).

The assessable PTE listed under Condition 42.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs), for which the stationary source has the potential to emit of 10 tpy or greater. The emissions listed in Table C are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

GHG and criteria PTE are as provided in the operating permit application. The Department calculated HAP PTE using AP 42 emission factors.

BASIS FOR REQUIRING AN OPERATING PERMIT

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

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

- A major source;
- A stationary source, including an area source, subject to federal New Source Performance Standards (NSPS) under Section 111 of the Clean Air Act or National Emission Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the Clean Air Act;
- Another stationary source designated by the Federal Administrator by regulation.

The Permittee is required to obtain an operating permit for the Barrow Power Plant as specified under 18 AAC 50.326(a) and 40 CFR 71.3(a), because the stationary source is a major source. This stationary source is a major source because, as defined in Section 302 of the Clean Air Act, it directly emits, or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation

AIR QUALITY PERMITS

Permits to Operate

The Department did not issue any air quality control permits to operate for this stationary source.

Title I (Construction and Minor) Permits

Construction Permit No. 9873-AC015. The Department issued this permit on September 7, 1999. All stationary source-specific requirements established in this permit are included in Operating Permit No. AQ0191TVP04 as described in Table D.

Minor Permit No. AQ0191MSS01. The Department issued this permit on February 17, 2005 to repeal the particulate matter source testing requirement for EU ID 9 in Construction Permit 9873-AC015.

Title V Operating Permits

Operating Permit No. AQ0191TVP01. The Department issued this permit on September 20, 2002.

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

- Revision No. 1. The Department issued this permit modification on September 2, 2005 to incorporate the revisions due to Minor Permit AQ0191MSS01.

Operating Permit No. AQ0191TVP02. The Department issued this permit on April 3, 2009.

Operating Permit No. AQ0191TVP03. The Department issued this permit on September 19, 2014.

Operating Permit No. AQ0191TVP04. The Department received the application for this operating permit on September 17, 2018. The Permittee amended the application on March 29, 2019, April 10, 2019, September 6, 2019, and September 14, 2020.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1976. Review of permit files for this stationary source, which includes past inspection reports and compliance evaluations, indicates a stationary source generally operating in compliance with its operating permit.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

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

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

- 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.

Preconstruction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions, and conditions that quote or paraphrase requirements in regulation.

These requirements include, but are not limited to, each emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of issuance of Operating Permit No. AQ0191TVP04. Table D and Table E below lists the requirements carried into Operating Permit No. AQ0191TVP04 to ensure compliance with the preconstruction permit requirements.

Table D - Comparison of Construction Permit No. 9873-AC015 Conditions to Operating Permit No. AQ0191TVP04 Conditions[1]

9873-AC015 Condition No.	Description of Requirement	AQ0191TVP04 Condition No.	How Condition was Revised
26	Owner requested limits to avoid classification as PSD major	16	Reference to 18 AAC 50.300(c) is revised to 18 AAC 50.306 because 18 AAC 50.300 was repealed on 10/1/2004.
29.a(1)	PM source test requirement for EU ID 9	None	Condition 1 of Minor Permit AQ0191MSS01 repealed this construction permit condition.
32	Ambient air quality protection requirement	17	The construction permit refers to 40 CFR 60.334(b) for monitoring the sulfur content of the fuel. However, 40 CFR 60.334(b) contains monitoring requirements for the NOx emission limit. Therefore, monitoring in accordance with the requirements for the state sulfur compound standard is required.

Table Note:

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

Table E - Comparison of Minor Permit No. AQ0191MSS01 Conditions to Operating Permit No. AQ0191TVP04 Conditions[1]

AQ0191MSS01 Condition No.	Description of Requirement	AQ0191TVP04 Condition No.	How Condition was Revised
1	Repeal of Condition 29.a(1) in Construction Permit 9873-AC015	None	Not applicable

Table Note:

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

NON-APPLICABLE REQUIREMENTS

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

- **40 CFR 64 Compliance Assurance Monitoring (CAM):** None of the emissions units at the stationary source use a control device to achieve compliance with emission limits or standards. Therefore, CAM requirements are not applicable.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 71, as specified in 18 AAC 50.040(j), in addition to creating state regulations, to establish an operating permit program. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 CFR 70. This Statement of Basis, required under 40 CFR 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ0191TVP04. Additionally and as required by 40 CFR 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

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

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

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a are fuel-burning equipment or industrial processes.

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

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 2 through 4 of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX.

The Permittee must establish by visual observations, which may be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program, that the stationary source is in continuous compliance with the state standards for visible emissions.

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

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emissions units through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Gas-Fired Equipment:

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

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

Liquid Fuel-Fired Equipment:

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

In accordance with 18 AAC 50.326(d)(1), EU ID 9 does not qualify as insignificant because it is subject to standards established in NESHAP Subpart ZZZZ. However, EU ID 9 is otherwise insignificant due to actual emissions less than the significant emissions thresholds in 18 AAC 50.326(e). Therefore, the Department has waived visible emissions monitoring for EU ID 9 while actual emissions remain below the thresholds, but the unit is subject to compliance certification requirements in accordance with Department Policy and Procedure No. 04.02.103, Topic #3.

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

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

Dual Fuel-Fired Units:

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of these emissions units operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2 is required. When any of these units operates on a backup liquid fuel for less than 400 hours in a calendar year, monitoring for that unit consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

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

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

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a are fuel-burning equipment or industrial processes.

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

Factual Basis: Condition 5 prohibits emissions in excess of the applicable state particulate matter standard. MR&R requirements are listed in Conditions 6 through 9 of the permit. These conditions have been adopted into regulation as SPC IX. The Department deleted the requirement to record and report the exhaust stack diameters because these one-time requirements have already been fulfilled.

Gas-Fired Equipment:

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

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

Liquid Fuel-Fired Equipment:

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

- For stacks normalized to 21 inches – 0.05 gr/dscf corresponds to 27% opacity
- For stacks normalized to 18 inches – 0.05 gr/dscf corresponds to 23% opacity
- For stacks normalized to 12 inches – 0.05 corresponds to 16.8 % opacity
- For stacks normalized to 10 inches – 0.05 corresponds to 14.3 %

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

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

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

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

Dual Fuel-Fired Units:

As long as dual fuel-fired emissions units operate only on gas, monitoring consists of a statement in the operating report indicating whether only gaseous fuels were used in the equipment during the period covered by the report. When any of these emissions units operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2 is required. When any of these emissions

units operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that unit consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Conditions 10 through 15, Sulfur Compound Emissions Standard and MR&R

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

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1, 2, 3a, 4, 5, 6a, 7a, 9, 10a, 11a, 12 through 14, 15a, 16a, and 17a are fuel-burning equipment or industrial processes.

These sulfur compound standards apply because they are contained in the federally-approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

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

Liquid Fuels:

For oil fired fuel burning equipment, the MR&R conditions are SPC XI and XII, adopted into regulation pursuant to AS 46.14.010(e).

Gaseous Fuels:

Fuel sulfur testing must be conducted to determine compliance with SO_2 emission standard. The Permittee must obtain a statement from the fuel supplier semiannually or conduct a semiannual analysis for fuel gas sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) and 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

The Permittee is required to report excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include copies of the records of semiannual statements from the fuel supplier or the sulfur content analysis with the stationary source operating report.

Conditions 16 and 17, Preconstruction Permit Requirements

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP-approved Permits to Operate issued on or before January 17, 1997 and operating permits issued between January 18, 1997 and September 30, 2004, and with all stationary source-specific requirements in EPA PSD permits, SIP-approved construction permits, SIP-approved minor permits, and owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT) limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or

maximum allowable ambient concentrations, and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally-approved SIP or approved operating permit program.

Factual Basis: The requirements from Title I permit conditions are included in the operating permit as described in Table D and Table E above.

Condition 18, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.050(a) for all incinerators regardless of size and 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. As previously noted, 18 AAC 50.050(a) and 50.055 are contained in the federally-approved SIP.

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

The Department finds that the insignificant units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions. The conditions require certification that the units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution.

The Department used the language in SPC V for the permit condition.

Conditions 19 through 27, 40 CFR 60 Subpart A Requirements

Legal Basis: The Permittee must comply with applicable New Source Performance Standard (NSPS) provisions[3]. NSPS requirements are included in the applicable requirement definition under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

Most affected facilities subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 2, 3a, 6a, and 7a are subject to the requirements of NSPS Subpart GG and are therefore subject to Subpart A.

Conditions 19.1 through 19.3 - The Permittee is subject to these requirements in the event of a new NSPS affected facility[4] or in the event of a modification or reconstruction of an existing facility[5] into an affected facility.

[3] EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit

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

[5] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.

Condition 19.4 - The requirements to notify the Administrator of any proposed replacement of components of an existing facility (40 CFR 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

Condition 20 - The requirements in 40 CFR 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to most NSPS affected facilities subject to Subpart A.

Conditions 21 and 22 - NSPS excess emission reporting requirements and summary report form in 40 CFR 60.7(c) & (d) are applicable to EU IDs 2, 3a, 6a, and 7a. The Department has included a copy of the federal EEMSP summary report form as Attachment 1 to the operating permit.

Recordkeeping requirements in 40 CFR 60.7(f) are applicable to all NSPS affected facilities. (Satisfied by Condition 61)

Condition 24 - The Permittee has complied with the initial performance test requirements in 40 CFR 60.8. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility or at such other times as may be required by EPA.

Condition 25 - Good air pollution control practices in 40 CFR 60.11 are applicable to most NSPS affected facilities subject to Subpart A.

Condition 26 - states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards.

Condition 27 - Concealment of emissions prohibitions in 40 CFR 60.12 are applicable to EU IDs 2, 3a, 6a, and 7a.

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

Condition 28, 40 CFR 60 Subpart GG Requirements

Legal Basis: The Department incorporated the requirements of NSPS Subpart GG by reference, as listed in 18 AAC 50.040(a)(2). NSPS Subpart GG applies to all stationary gas turbines constructed, modified, or reconstructed after October 3, 1977 with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired. EU IDs 2, 3a, 6a, and 7a are subject to the requirements of Subpart GG. EU ID 6a was installed in 2017, EU ID 7a was installed in 2019, and EU ID 3a was installed in 2020, but these turbines were initially constructed prior to February 18, 2005. Therefore, they are subject to the requirements of Subpart GG rather than NSPS Subpart KKKK.

Factual Basis: These conditions incorporate NSPS Subpart GG NOx emission and sulfur compound limits.

NOx Standard: EU IDs 3a, 6a, and 7a are subject to the NOx standard under 40 CFR 60.332. In accordance with 40 CFR 60.332(e), EU ID 2 is not subject to the NOx standard in Subpart GG because it was constructed prior to October 3, 1982.

The Department included periodic NOx monitoring requirements for EU IDs 6a and 7a as required under 40 C.F.R. 71.6(a)(3), because NSPS Subpart GG does not contain MR&R sufficient for an operating permit for turbines without continuous emissions monitors. EU ID 7a was tested in November of 2019. The Department is requiring testing of EU ID 7a and EU ID 6a on the following schedule. If the most recent performance test on a turbine showed NOx emissions at less than or equal to 90 percent of the emission limit, then testing is required within 5 years of the last performance test. If the most recent performance test showed operations at greater than 90 percent of the emissions limit, then source testing is required every year until two consecutive tests show emissions at less than or equal to 90 percent of the limit. The language in the previous operating permit for EU ID 6 regarding 400 hours of operation per year for testing is removed because the turbine has a history of operating much greater than 400 hours per year.

EU ID 3a was initially constructed in 1982, and nothing has been provided by the Permittee to show the exemption for the NOx emission limit in 40 CFR 60.332(e) is applicable. Therefore, the Permittee must comply with the NOx limit in Subpart GG for EU ID 3a. The Department assumes the initial source test required in NSPS Subpart A has already been conducted. Therefore, initial test requirements under Subpart A for EU ID 3a are not included in the operating permit. The Department is requiring a NOx test for EU ID 3a within one year of the effective date of Operating Permit AQ0191TVP04 because the unit was constructed in 1982 and the recent test history is unclear. Periodic test requirements for EU ID 3a will be addressed at the next operating permit renewal.

The MR&R conditions do not state how turbine load must be measured. For some turbines, it may be possible to directly measure load as either mechanical or electrical output. For others, it may be necessary to calculate load indirectly based on measurements of other parameters. The Department is not requiring a specific method through permit conditions, but will evaluate the adequacy of the method proposed by the Permittee in the source test plan. Other test requirements and methods are as specified in NSPS Subpart GG.

SO_2 Standard: The Permittee is required to comply with one of the following requirements:

- Do not cause or allow SO_2 emission in excess of 0.015 percent by volume, at 15 percent O_2 and on a dry basis (150 ppmv), or

- Do not cause or allow the sulfur content for the fuel burned in the turbine to exceed 0.8 percent by weight.

MR&R for the sulfur standard is as required in NSPS Subpart GG.

Condition 29, 40 CFR 61 Subpart A & M Requirements

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 CFR 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 CFR 61, Subpart M, as adopted by reference under 18 AAC 50.040(b)(2)(F). The asbestos

demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

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

Condition 30, 40 CFR 63 Subpart A Requirements

Legal Basis: The Permittee must comply with applicable National Emission Standards for Hazardous Air Pollutants (NESHAP). NESHAP requirements are included in the "applicable requirement" definition under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

Most facilities subject to NESHAP requirements are subject to Subpart A. At this stationary source, EU IDs 4, 5, and 9 are subject to NESHAP Subpart ZZZZ and, therefore, are subject to Subpart A.

Factual Basis: Subpart A contains general requirements applicable to all facilities and emissions units subject to NESHAP requirements.

Condition 31, 40 CFR 63 Subpart *ZZZZ* Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of any existing, new, or reconstructed stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. The Barrow Power Plant is an area source that contains engines subject to the requirements of NESHAP Subpart ZZZZ.

Factual Basis: Barrow Power Plant is an area source of HAP emissions that is not accessible by the Federal Aid Highway System (FAHS)

EU ID 9 is an existing, non-emergency combustion ignition (CI) RICE with a rating less than 300 Hp. The engine must meet the work and management practices for stationary non-emergency CI RICE with a rating of less than or equal to 300 hp as specified in Table 2d, Item 1 to Subpart ZZZZ.

For the emergency engines, EU IDs 4 and 5, the Permittee is required to install a non-resettable hour meter in each unit for accurate recording and monitoring to demonstrate compliance with the management practice requirements and operational hour limitations for emergency RICE. Each of EU IDs 4 and 5 is allowed to operate up to 100 hours per calendar year for maintenance checks and readiness testing. The Permittee is also allowed to operate the emergency RICE in non-emergency situations for up to 50 hours per calendar year, as allowed under 40 CFR 63.6640(f). The 50 hours allowed for non-emergency situations are counted towards the 100 hours per year provided for maintenance and testing. There is no time limit on the use of emergency stationary RICE in emergency situations. If any of EU IDs 4 and 5 no longer meet the criteria for an emergency engine, as defined in 40 CFR 63.6675, the emissions unit will need to meet all applicable requirements for non-emergency engines. The U.S. Court of Appeals for the District of Columbia Circuit vacated 40 CFR 63.6640(f)(2)(ii) and (iii) on May 4, 2016. Therefore, 40 CFR 63.6640(f)(2)(ii) and (iii) have ceased to have any legal effect and are not included in the operating permit.

The Permittee must comply with the recordkeeping requirements of 40 CFR 63.6655(e) and 40 CFR 63.6660. The Permittee is required to include reports of deviations from NESHAP Subparts A and ZZZZ requirements with the semiannual operating reports. In accordance with 40 CFR 63.6645(a)(5), initial notification is not required for existing stationary CI RICE that are not subject to any numerical emission standards.

Conditions 32 through 34, 40 CFR 82 Subpart F, G, & H Requirements

Legal Basis: The requirements of 40 CFR 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 CFR 71.2. Condition 32 requires compliance with the applicable requirements in 40 CFR 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants in 40 CFR 82, Subpart F.

Conditions 33 and 34 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 33 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 34 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk.

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

Conditions 35 through 37, NESHAP Applicability Determination Requirements

Legal Basis: These conditions require the Permittee to determine rule applicability of NESHAPS and require recordkeeping for those determinations and notifications as applicable.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and Administrator if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 CFR part 63 and to keep records of applicability determinations and make those records available to the Department. Notifications of construction are also required as applicable.

Conditions 38 through 40, Standard Terms and Conditions

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

Factual Basis: These are standard conditions that are included in all operating permits.

Condition 41, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400 through 403. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The regulations in 18 AAC 50.400 through 403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 42 and 43, Emission Fees

Legal Basis: These conditions require compliance with the applicable fee requirements in 18 AAC 50.410-420. The regulations specify the time period for the assessable emissions and the methods the Permittee may use to calculate assessable emissions. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The Department used the language in Standard Permit Condition I, adopted by reference under 18 AAC 50.346(b), for the permit.

These conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The assessable emissions are the lesser of the stationary source's potential or projected emissions of each air pollutant at 10 tons per year or greater (AS 46.14.250(h)(1)).

The conditions allow the Permittee to calculate assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

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

Condition 44, Good Air Pollution Control Practice

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

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices. The Department adopted this condition under 18 AAC 50.346(b) as Standard Operating Permit Condition VI pursuant to AS 46.14.010(e). Records kept for units previously subject to this requirement need to be maintained for 5 years even if a unit is no longer subject to this condition.

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

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

Condition 45, Dilution

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

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

Condition 46, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition reiterates 18 AAC 50.045(d), which requires a person to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity. This requirement applies because the Permittee has an emission unit or activity listed under Table 7 of 18 AAC 50.346(c). 18 AAC 50.045 is included in the SIP approved by EPA. The listed emission units and activities in Table 7 are: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic; and other emission units the Department finds are likely to generate fugitive dust.

Factual Basis: The Department used the language in Standard Permit Condition X for the permit. The condition requires the Permittee to take reasonable action to prevent particulate matter from being emitted into the ambient air in accordance with 18 AAC 50.045(d).

Condition 47, Stack Injection

Legal Basis: 18 AAC 50.055 is included in the SIP approved by EPA. It is therefore an applicable requirement per 40 CFR 71.2.

This condition requires compliance with the applicable requirement in 18 AAC 50.055(g). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting

it into a stack). Stack injection requirements apply to stacks of emissions units at a stationary source constructed or modified after November 1, 1982.

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

Condition 48, Air Pollution Prohibited

Legal Basis: 18 AAC 50.110 is included in the SIP approved by EPA. It is therefore an applicable requirement per 40 CFR 71.2.

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

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

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

Condition 49, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235. Technology-Based Emission Standard requirements apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 65. Excess emission reporting under Condition 65 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 65.

Condition 50, Open Burning

Legal Basis: 18 AAC 50.065 is included in the SIP approved by EPA. The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open

burning at the stationary source. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

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

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored.

Condition 51, Requested Source Tests

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

Factual Basis: This condition applies because this is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a).

Conditions 52 through 54, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 52 and 54 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 53 specifies source test methods, as required by 40 CFR 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests, or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 52 through 54.

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

Condition 55, Test Exemption

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

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

Conditions 56 through 59, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: These conditions require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 56 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o)

constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

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

Condition 60, Particulate Matter Calculations

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

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

Condition 61, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 CFR 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit.

Condition 62, Certification

Legal Basis: All operating permits must contain a requirement to certify any permit application, report, affirmation, or compliance certification, per 18 AAC 50.345(j) and 18 AAC 50.205. Both requirements are part of the SIP approved by EPA.

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

Condition 63, Submittals

Legal Basis: This condition requires the Permittee to comply with the standardized reporting requirements in 18 AAC 50.326(j) and applies because the Permittee is required to send reports to the Department.

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

Condition 64, Information Requests

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

Factual Basis: The requirement in 18 AAC 50.345(i) is a standard condition that must be included in each operating permit, as specified in 18 AAC 345(a). This condition requires the Permittee to submit information requested by the Department.

Condition 65, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii) and 71.6(c)(1). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The Department used the language in SPC III for the permit condition. The Department used the notification form in SPC IV for the notification requirements.

Condition 66, Operating Reports

Legal Basis: This condition requires compliance with the applicable requirement in 18 AAC 50.346(b)(6). The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii)(A) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC VII for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit.

The condition specifies that for the transition periods between an expiring permit and a renewal permit, the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified.

The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 67, Annual Compliance Certification

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

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

Condition 67.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified: the Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period, or may choose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

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

Condition 68, Emission Inventory Reporting

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

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

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's Air Online Services webpage. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options are to submit the emission inventory via mail, email, or fax. Detailed instructions on completing and submitting the emission inventory and the report form are available at the Point Source Emission Inventory webpage by clicking the Emission Inventory

Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources are required to submit with each report emissions data described in 40 CFR 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A, as applicable. Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type A (large) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every year for the previous calendar year (also known as the inventory year). For triennial inventory years, Type A sources only need to submit one report, not both an annual report and a separate triennial report.

Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds for Type B (small) sources, as listed in Table 1 to Appendix A of 40 CFR 51 Subpart A, are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year. The emission thresholds for nonattainment areas vary depending on the nonattainment status of the area.

As of the issue date of this permit, the stationary source is a Type A stationary source.

Condition 69, NSPS and NESHAP Reports and Waivers

Legal Basis: The Permittee is required to provide the Federal Administrator and Department a copy of each emissions unit report for units subject to NSPS or NESHAP federal regulations under 18 AAC 50.326(j)(4). 40 CFR 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: The condition supplements the specific reporting requirements in 40 CFR 60, 40 CFR 61, and 40 CFR 63.

Condition 70, Permit Applications and Submittals

Legal Basis: 40 CFR 71.10(d)(1), adopted by the Department under 18 AAC 50.040(j)(7), requires submission of a copy of each permit application to EPA.

Factual Basis: The Department used the language in SPC XIV, adopted by reference under 18 AAC 50.346(b)(7), for the permit condition. The condition directs the applicant to send a copy of each application for modification or renewal of this permit to the EPA. The information may be submitted in electronic format, if practicable. This condition shifts the burden of compliance with 40 CFR 71.10(d)(1) from the Department to the Permittee as allowed under 40 CFR 71.10(d)(1).

Conditions 71 through 73, Permit Changes and Revisions Requirements

Legal Basis: 40 CFR 71.6(a)(8), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require that these provisions be included in operating permits.

Factual Basis: 40 CFR 71.6(a)(12) and (13) specify changes that may be made without a permit revision, and 40 CFR 71.6(a)(8) states permit revisions are not required for some emissions trading and similar programs.

The Permittee did not request trading of emission increases and decreases as described in 40 CFR 71.6(a)(13)(iii).

Condition 74, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accordance with the operating permit program. The obligations for a timely and complete operating permit application are in 40 CFR 71.5(a) through (c), adopted by reference in 18 AAC 50.040(j)(3), and 18 AAC 50.326(c).

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 CFR 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 CFR 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 CFR 71.5(c) and remits payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 CFR 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

Therefore, as long as an application has been submitted within the timeframe specified under 40 CFR 71.5(a)(1)(iii), and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application.

Conditions 75 through 80, General Compliance Requirements and Schedule

Legal Basis: These conditions require compliance with the applicable requirements in 18 AAC 50.345(b) through (d) and (h) and 40 CFR 71.6(c)(3). As stated in 18 AAC 50.345(a), the requirements in 18 AAC 50.345(b) through (d) and (h) are standard conditions that must be included in all operating permits issued by the Department.

Factual Basis: These are standard conditions for compliance required for all operating permits.

Conditions 81 and 82, Permit Shield

Legal Basis: These conditions require compliance with the requirements in 40 CFR 71.6(f), which the Department has adopted by reference under 18 AAC 50.040(j)(4). These requirements apply because the Permittee has requested that the Department shield the stationary source from specific non-applicable requirements listed under this condition.

Factual Basis: Table B of Operating Permit No. AQ0191TVP04 shows the permit shield that the Department granted to the Permittee. The Department based the determinations on the permit application, past operating permit, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.