DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ1189TVP02 Issue Date: PUBLIC COMMENT - May 12, 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, **Alaska Electric and Energy Cooperative, Inc.**, for the operation of the **Soldotna Combustion Turbine 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. AQ1189TVP01 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
CI.....compression ignition
CO .....carbon monoxide
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....emissions unit
gph.....gallons per hour
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
ICE.....internal combustion engine
ID.....emissions unit identification number
kPa.....kiloPascals
kW .....kilowatts
LAER.....lowest achievable emission rate
LPG .....liquefied petroleum gas
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
psia .....pounds per square inch (absolute)
PSD .....prevention of significant deterioration
PTE .....potential to emit
RICE .....reciprocating internal combustion engine
SIC. .....Standard Industrial Classification
SIP.....State Implementation Plan
SO_2 .....sulfur dioxide
tph .....tons per hour
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:		Alaska Electric and Energy Cooperative, Inc. 3977 Lake Street Homer, AK 99603
Stationary Source Name:		Soldotna Combustion Turbine Plant
Location:		60º 29′ 57" North; 150º 59′ 49" West
Physical Address:		41925 Sterling Highway Soldotna, AK 99669
Owner:		Alaska Electric and Energy Cooperative, Inc. 3977 Lake Street Homer, AK 99603
Operator:		Homer Electric Association (HEA) 3977 Lake Street Homer, AK 99603
Permittee's Responsible Official:		Jim Kingrey, Plant Superintendent 280 Airport Way Kenai, AK 99611
Designated Agent:		Bruce Linton, Environmental Compliance Officer 280 Airport Way Kenai, AK 99611
Stationary Source and Building Contact:		Bruce Linton, Environmental Compliance Officer 280 Airport Way Kenai, AK 99611 (907) 335-6176 blinton@homerelectric.com
Permit and Fee Contact:		Bruce Linton, Environmental Compliance Officer 280 Airport Way Kenai, AK 99611 (907) 335-6176 blinton@homerelectric.com
Process Description:	SIC Code	4911 Electric Services
	NAICS Code:	221112 Electric power generation, fossil fuel

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

Section 2. Emissions Unit Inventory and Description

Emissions units 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 [1]

EU ID	Name	Description	Rating/Size	Fuel	Installation Date
1	Combustion Turbine	General Electric LM 6000 PF	49 MW (401.4 MMBtu/hr)	Natural Gas	2014
2	Combustion Turbine	General Electric LM 6000 PF	49 MW (401.4 MMBtu/hr)	Natural Gas	TBD
3	Inlet Air Heater	TBD	50 MMBtu/hr	Natural Gas	TBD
6	Generator	Kohler 400REZX	400 kW (605 hp)	Propane	TBD
7	Fire Pump	John Deere 4045HF28A, B, C, D	144 hp	Diesel	2014 [2]
8	Standby Generator	Kohler 12RES	14 hp	Propane	2014 [3]

Table Notes:

[1] EU IDs 4 and 5 are insignificant units under 18 AAC 50.326(e) with no applicable Title I, NSPS, nor NESHAP requirements. Therefore, these units are not included in the table.

[2] Construction date is June 2011.

[3] Construction date is August 2004.

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

Section 3. State Requirements

Visible Emissions Standard

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 3 and 6 through 8 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), 50.055(a)(1), & 50.326(j)]
[40 CFR 71.6(a)(1)]

1.1. For EU IDs 1 through 3, burn only gas as fuel. In each operating report under Condition 64 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 63 if any fuel other than gas is burned in any of these emissions units.

1.2. For EU ID 6, burn only propane as fuel. In each operating report under Condition 64 indicate whether each of these emissions units burned only propane during the period covered by the report. Report under Condition 63 if any fuel other than propane is burned in any of these emissions units.

1.3. For EU IDs 7 and 8, monitoring shall consist of an annual compliance certification under Condition 65 with the visible emissions standard based on reasonable inquiry.

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

Particulate Matter (PM) Emissions Standard

2. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 3 and 6 through 8 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)]

2.1. For EU IDs 1 through 3, comply with Condition 1.1.

2.2. For EU ID 6, comply with Condition 1.2.

2.3. For EU IDs 7 and 8, the Permittee must annually certify compliance under Condition 65 for the PM standard based on reasonable inquiry.

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

Sulfur Compound Emissions Standard

3. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 through 3 and 6 through 8 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[1] (EU ID 7)

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

4.1. Comply with either Condition 4.1.a or Condition 4.1.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 ID 7 at least monthly.

4.2. Fuel testing under Condition 4.1.a or Condition 4.1.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).

4.3. 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)]

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

5.1. If SO_2 emissions calculated under Condition 4.3 exceed 500 ppm, the Permittee shall report in accordance with Condition 63. When reporting under this condition, include the calculation Condition 4.3.

5.2. The Permittee shall include in the operating report required by Condition 64 for each month covered by the report:

[1] *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.

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 4.1.a or Condition 4.1.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 4.3.

[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 through 3)

6. Sulfur Compound Monitoring. The Permittee shall either

6.1. obtain the documentation required in Condition 27.6.a; or

6.2. 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).

7. Sulfur Compound Recordkeeping. The Permittee shall keep records of the documentation required in Condition 6.1 or the sulfur content analysis required under Condition 6.2.

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

8.1. Report in accordance with Condition 63 whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 3.

8.2. Include copies of the records required by Condition 7 with the operating report required by Condition 64 for the period covered by the report.

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

Propane (EU IDs 6 and 8)

9. Sulfur Compound Monitoring.

9.1. Obtain from the fuel supplier a statement indicating the total sulfur level of the fuel or its H_2S content in ppmv;

9.2. Obtain from the fuel supplier a statement that the propane delivered to the facility meets the standards for commercial propane set by the Gas Processors Association; or

9.3. Perform a semiannual analysis of a representative sample of the propane to determine the sulfur or H_2S content using ASTM D 4913-89 (reapproved 1995), ASTM D 4910-88 (reapproved 1999), or a listed method approved in 18 AAC 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

10. Recordkeeping. Keep records of the statement required under Condition 9.1 or 9.2, or the content analysis required under Condition 9.3.

11. Reporting.

11.1. Include copies of the records required by Condition 10 in the operating report required by Condition 64.

11.2. Report in accordance with Condition 63 whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 3.

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

Preconstruction Permit [2] Requirements

Owner Requested Limits to Avoid PSD Classification Under 18 AAC 50.306

12. PSD Avoidance Limit for CO. Limit the hours of operation for the emergency LPG generator, EU ID 6, to 500 hours per consecutive 12-month rolling period. The Permittee shall:

[Condition 8, Minor Permit AQ1189MSS02, 4/16/2015]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

12.1. Install a non-resettable hour meter prior to the startup of the engine to continuously monitor the number of operating hours for EU ID 6;

12.2. Record the number of operating hours of EU ID 6;

12.3. Prior to the end of each calendar month, calculate and record the rolling 12-month total operating hours of EU ID 6 for the previous calendar month;

12.4. Report using the operating report under Condition 64:

[Conditions 8.1 through 8.4, Minor Permit AQ1189MSS02, 4/16/2015]
[40 CFR 71.6(a)(3)]

a. the monthly total operating hours of EU ID 6 for the previous calendar month, and

b. the rolling 12-month total of operating hours for EU ID 6.

[Conditions 8.4a & 8.4b, Minor Permit AQ1189MSS02, 4/16/2015]

[2] *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.

12.5. Notify the Department under Excess Emissions and Permit Deviations described in Condition 63 should the total operating hours for a rolling 12-month period exceed the limit of Condition 12.

[Condition 8.5, Minor Permit AQ1189MSS02, 4/16/2015]
[40 CFR 71.6(a)(3)]

13. PSD Avoidance Limit for Nitrogen Oxides (NOx). The combined NOx emissions from EU IDs 1 and 2 shall not exceed 231 tpy. The Permittee shall monitor, record, and report as follows:

[Condition 9, Minor Permit AQ1189MSS02, 4/16/2015]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

13.1. Prior to startup of EU IDs 1 and 2, install thermocouples to monitor the inlet air temperature of the emissions units.

13.2. Maintain the inlet air temperature of EU IDs 1 and 2 at an hourly average temperature at or above 20ºF at all times the emissions units are in operation.

13.3. Monitor and record the hourly average inlet temperature for EU IDs 1 and 2 at all times the emissions units are in operation.

13.4. Upon startup of EU ID 2, monitor and record the hourly average operating load of each of EU IDs 1 and 2. Calculate and record hourly, the combined NOx emissions of EU IDs 1 and 2 using 48.93 pounds per hour (lb/hr) and the equivalency factor in Table B.

[Conditions 9.1 through 9.4, Minor Permit AQ1189MSS02, 4/16/2015]
[40 CFR 71.6(a)(3)]

Table B - Average Operating Load and Equivalency Factor

Average Operating Load	Equivalency Factor
25 MW or greater	0.374
Below 25 MW	1

13.5. If the Distributed Control System is inoperative, perform the calculations required in Condition 13.4, using the worst case NOx emission rate of 48.93 lb/hr for the period when the Distributed Control System is inoperative.

13.6. By the end of each calendar month, calculate and record for the previous month, the combined NOx emissions of EU IDs 1 and 2 and the combined NOx emissions for the rolling 12 calendar month period.

13.7. Report in the operating report required by Condition 64, the NOx emissions for each month and for the rolling 12 calendar month period, recorded in Condition 13.6 for each month of the reporting period.

13.8. Report under excess emissions and permit deviation required by Condition 63 if the rolling 12 calendar months NOx emissions recorded in Condition 13.6 exceed the limit in Condition 13.

13.9. Report under excess emissions and permit deviation required by Condition 63, if the hourly average temperature of the inlet air temperature of EU IDs 1 or 2 is below 20ºF.

[Conditions 9.5 through 9.9, Minor Permit AQ1189MSS02, 4/16/2015]
[40 CFR 71.6(a)(3)]

Insignificant Emissions Units

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

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

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

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

[18 AAC 50.055(b)(1)]

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

[18 AAC 50.055(c)]

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

a. Submit the compliance certifications of Condition 65 based on reasonable inquiry;

b. Comply with the requirements of Condition 46; and

c. Report in the operating report required by Condition 64 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds; and

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 14.1, 14.2, and 14.3.

[18 AAC 50.040(j)(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

15. New Source Performance Standards (NSPS) Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[3] or existing facility[4] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator written notification or, if acceptable to both the Administrator[5] 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]

15.1. 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]

15.2. 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]

15.3. 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]

15.4. 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:

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

[4] *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.

[5] For Section 4 of this permit, the Department defines *Administrator* to mean the EPA Administrator and the Department.

[40 CFR 60.15(d), Subpart A]

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.

16. 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 1 through 3, any malfunction of the air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU ID 1 through 3 is inoperative.

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

17. 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-or summary report form (see Condition 18) 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]

17.1. 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]

17.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 1 and 2; 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]

17.3. 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]

17.4. 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]

18. 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]

18.1. 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 17 need not be submitted unless requested by the Administrator.

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

18.2. 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 17 shall both be submitted.

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

19. 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]

20. NSPS Subpart A Performance (Source) Tests. Conduct source tests according to Section 6 and as required in this condition on any affected facility.

[18 AAC 50.040(a)(1)]

20.1. 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]

20.2. 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]

20.3. 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]

20.4. 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]

20.5. 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]

20.6. 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]

20.7. 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]

20.8. 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]

20.9. 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]

21. 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 1 through 3 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 1 through 3.

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

22. 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 Conditions 24 and 27, nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1 through 3 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]

23. 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 24, 25, 26, or 27. 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 Dc

24. NSPS Subpart Dc Applicability. For EU ID 3, comply with the following applicable requirements of NSPS Subpart Dc.

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

NSPS Subpart Dc Reporting and Recordkeeping Requirements

24.1. Submit notification of the date of construction or reconstruction and actual startup, as provided by Condition 15. This notification shall include the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

[40 CFR 71.6(a)(3)]
[40 CFR 60.48c(a) & (a)(1), Subpart Dc]

24.2. Except as provided under Condition 24.3, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

[40 CFR 71.6(a)(3)]
[40 CFR 60.48c(g)(1), Subpart Dc]

24.3. As an alternative to meeting the requirements of Condition 24.2, the owner or operator of an affected facility that combusts only natural gas may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

[40 CFR 60.48c(g)(2), Subpart Dc]

Subpart IIII

25. NSPS Subpart IIII Applicability. For EU ID 7, comply with the following applicable requirements of NSPS Subpart IIII.

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

NSPS Subpart IIII Emission Standards

25.1. You must comply with the following emission standards:

[40 CFR 71.6(a)(1)]
[40 CFR 60.4205(c), Subpart IIII]

a.	NMHC + NOx:	4.0 g/kW-hr	(3.0 g/hp-hr)
b.	CO:	5.0 g/kW-hr	(3.7 g/hp-hr)
c.	PM:	0.30 g/kW-hr	(0.22 g/hp-hr)

[Table 4, NSPS Subpart IIII]

25.2. Performance tests conducted in-use must meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4205(e), Subpart IIII]

25.3. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in Condition 25.1 over the entire life of the engine.

[40 CFR 71.6(a)(1)]

[40 CFR 60.4206, Subpart IIII]

NSPS Subpart IIII Compliance Requirements

25.4. You must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.

[40 CFR 71.6(a)(1)]
[40 CFR 60.4207(b), Subpart IIII]

25.5. Do all of the following, except as permitted under Condition 25.7:

[40 CFR 71.6(a)(3)]
[40 CFR 60.4211(a), Subpart IIII]

a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

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

c. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

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

25.6. Comply with the emission standards specified in Conditions 25.1 by purchasing an engine certified to the emission standards in Conditions 25.1 for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition 25.7.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4211(c), Subpart IIII]

25.7. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as required by 40 CFR 60.4211(g)(2).

[40 CFR 71.6(a)(3)]
[40 CFR 60.4211(g), Subpart IIII]

NSPS Subpart IIII Testing Requirements

25.8. Performance tests conducted pursuant to NSPS Subpart IIII must be conducted according to 40 CFR 60.4212(a) through (e).

[40 CFR 71.6(a)(3)]
[40 CFR 60.4212, Subpart IIII]

NSPS Subpart IIII General Requirements

25.9. Table 8 to NSPS Subpart IIII shows which parts of the General Provisions in 40 CFR 60.1 through 60.19 apply to you.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4218, Subpart IIII]

Subpart JJJJ

26. NSPS Subpart JJJJ Applicability. For EU ID 6, comply with the following applicable requirements of NSPS Subpart JJJJ.

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

NSPS Subpart JJJJ Emission Standards

26.1. Comply with the emission standards for new nonroad spark ignition (SI) engines in 40 CFR 1048.

[40 CFR 71.6(a)(1)]
[40 CFR 60.4233(c) & 60.4231(c), Subpart JJJJ]

26.2. Owners and operators of stationary SI internal combustion engines (ICE) that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4233(h), Subpart JJJJ]

26.3. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in Condition 26.1 over the entire life of the engine.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4234, Subpart JJJJ]

NSPS Subpart JJJJ Other Requirements

26.4. The owner or operator must install a non-resettable hour meter.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4237(a), Subpart JJJJ]

NSPS Subpart JJJJ Compliance Requirements

26.5. You must comply with the emission standards in Condition 26.1 by purchasing an engine certified to the emission standards in Condition 26.1, as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in Conditions 26.5.a and 26.5.b.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4243(a), Subpart JJJJ]

a. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

b. If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to Condition 26.5.b(i).

[40 CFR 60.4243(a)(1) & (2), Subpart JJJJ]

(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40 CFR 60.4243(a)(2)(iii), Subpart JJJJ]

26.6. You must operate the emergency stationary ICE according to the requirements in Conditions 26.6.a through 26.6.c. In order for the engine to be considered an emergency stationary ICE under NSPS Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 26.6.a through 26.6.c, is prohibited. If you do not operate the engine according to the requirements in Conditions 26.6.a through 26.6.c, the engine will not be considered an emergency engine under NSPS Subpart JJJJ and must meet all requirements for nonemergency engines.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4243(d), Subpart JJJJ]

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

b. You may operate your emergency stationary ICE for any combination of the purposes specified in Condition 26.6.b(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 26.6.c counts as part of the 100 hours per calendar year allowed by this paragraph.

[40 CFR 60.4243(d)(1) & (2), Subpart JJJJ]

(i) Emergency stationary ICE 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 ICE beyond 100 hours per calendar year.

[40 CFR 60.4243(d)(2)(i), Subpart JJJJ]

c. Emergency stationary ICE 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 26.6.b. Except as provided in Condition 26.6.c(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4243(d)(3), Subpart JJJJ]

(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 60.4243(d)(2)(i)(A) through (E) are met.

[40 CFR 60.4243(d)(3)(i), Subpart JJJJ]

NSPS Subpart JJJJ Testing Requirements

26.7. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in 40 CFR 60.4244(a) through (f).

[40 CFR 71.6(a)(3)]
[40 CFR 60.4244, Subpart JJJJ]

NSPS Subpart JJJJ Notifications, Reports, and Records

26.8. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4245, Subpart JJJJ]

a. Owners and operators of all stationary SI ICE must keep records of the information in Conditions **Error! Reference source not found.** through 26.8.a(iii).

[40 CFR 60.4245(a), Subpart JJJJ]

(i) Maintenance conducted on the engine.

(ii) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(iii) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a noncertified manner and subject to Condition 26.5.b, documentation that the engine meets the emission standards.

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

b. The owner or operator 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.

[40 CFR 60.4245(b), Subpart JJJJ]

c. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in Condition 26.7 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

d. If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Condition 26.6.c(i), you must submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3).

[40 CFR 60.4245(d) & (e), Subpart JJJJ]

NSPS Subpart JJJJ General Provisions

e. Table 3 to NSPS Subpart JJJJ shows which parts of the General Provisions in 40 CFR 60.1 through 60.19 apply to you.

[40 CFR 71.6(a)(1)]
[40 CFR 60.4246, Subpart JJJJ]

Subpart KKKK

27. NSPS Subpart KKKK Applicability. For EU IDs 1 and 2, comply with the following applicable requirements of NSPS Subpart KKKK.

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

NSPS Subpart KKKK Emission Limits

27.1. You must meet the following emission limits for NOx:

[40 CFR 71.6(a)(1)]
[40 CFR 60.4320(a), Subpart KKKK]

a. 25 ppm at 15 percent O_2 or 150 ng/J of useful output (1.2 lb/MWh).

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

[Table 1, 40 CFR 60 Subpart KKKK]

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

[40 CFR 71.6(a)(1)]
[40 CFR 60.4330(a)(2), Subpart KKKK]

NSPS Subpart KKKK General Compliance Requirements

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

[40 CFR 71.6(a)(1)]
[40 CFR 60.4333(a), Subpart KKKK]

NSPS Subpart KKKK Monitoring

27.4. Perform annual performance tests in accordance with Conditions 27.11 and 27.12 to demonstrate continuous compliance. If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, you must resume annual performance tests.

[40 CFR 71.6(a)(3)(i)]
[40 CFR 60.4340(a), Subpart KKKK]

27.5. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 27.6. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 27.13. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377, which measure the major sulfur compounds, may be used.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4360, Subpart KKKK]

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

[40 CFR 71.6(a)(3)]
[40 CFR 60.4365, Subpart KKKK]

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

b. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. 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 60.4365(a) & (b), Subpart KKKK]

27.7. The frequency of determining the sulfur content of the fuel must be as follows:

[40 CFR 71.6(a)(3)]
[40 CFR 60.4370, Subpart KKKK]

a. Gaseous fuel. If you elect not to demonstrate sulfur content using options in Condition 27.6, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

b. Custom schedules. Notwithstanding the requirements of Condition 27.7.a, 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 60.4370(c)(1) and (c)(2), 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 27.2. The two custom sulfur monitoring schedules set forth in 40 CFR 60.4370(c)(1)(i) through (iv) and in 40 CFR 60.4370(c)(2) are acceptable, without prior Administrative approval.

[40 CFR 60.4370(b) & (c), Subpart KKKK]

NSPS Subpart KKKK Reporting

27.8. For each affected unit required to periodically determine the fuel sulfur content under NSPS Subpart KKKK, you must submit reports of excess emissions and monitor downtime, in accordance with Condition 17. Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4375(a), Subpart KKKK]

27.9. For each affected unit that performs annual performance tests in accordance with Condition 27.4, you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4375(b), Subpart KKKK]

27.10. If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

[40 CFR 71.6(a)(3)]
[40 CFR 60.4385, Subpart KKKK]

a. 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 combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

b. 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 ends on the date and hour of the next valid sample.

[40 CFR 60.4385(a) & (c), Subpart KKKK]

NSPS Subpart KKKK Performance Tests

27.11. NOx performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).

[40 CFR 71.6(a)(3)]
[40 CFR 60.4400(a), Subpart KKKK]

a. There are two general methodologies that you may use to conduct the performance tests. For each test run:

[40 CFR 60.4400(a)(1), Subpart KKKK]

(i) Measure the NOx concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of 40 CFR 60. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of 40 CFR 60, and measure and record the electrical and thermal output from the unit. Then, use the equation under 40 CFR 60.4400(a)(1)(i) to calculate the NOx emission rate.

[40 CFR 60.4400(a)(1)(i), Subpart KKKK]

(ii) Measure the NOx and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of 40 CFR 60. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of 40 CFR 60 to calculate the NOx emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in 40 CFR 60.4350(f) to calculate the NOx emission rate in lb/MWh.

[40 CFR 60.4400(a)(1)(ii), Subpart KKKK]

b. Sampling traverse points for NOx and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must 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.

[40 CFR 60.4400(a)(2), Subpart KKKK]

c. Notwithstanding Condition 27.11.b, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of 40 CFR 60 if the following conditions are met:

[40 CFR 60.4400(a)(3), Subpart KKKK]

(i) You may perform a stratification test for NOx and diluent pursuant to the procedures specified in section 6.5.6.1(a) through (e) of appendix A of 40 CFR 75.

(ii) Once the stratification sampling is completed, you may use the alternative sample point selection criteria for the performance test in 40 CFR 60.4400(a)(3)(ii)(A), (B), or (C).

[40 CFR 60.4400(a)(3)(i) & (ii), Subpart KKKK]

27.12. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4400(b), Subpart KKKK]

a. Compliance with the applicable emission limit in Condition 27.1 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NOx emission rate at each tested level meets the applicable emission limit in Condition 27.1.

[40 CFR 60.4400(b)(4), Subpart KKKK]

b. The ambient temperature must be greater than 0 °F during the performance test.

[40 CFR 60.4400(b)(6), Subpart KKKK]

27.13. If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 for natural gas. The fuel analyses of this section may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377.

[40 CFR 71.6(a)(3)]
[40 CFR 60.4415(a)(1)(ii), Subpart KKKK]

40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants

Subparts A & M

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

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

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants

Subpart A

29. For EU ID 8, 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

30. NESHAP Subpart ZZZZ Applicability. For EU IDs 6 through 8, comply with the following applicable requirements of NESHAP Subpart ZZZZ.

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

30.1. For EU ID 6, meet the requirements of 40 CFR 63 by meeting the requirements of Condition 26. No further requirements apply under 40 CFR 63.

[40 CFR 63.6590(c), Subpart ZZZZ]

30.2. For EU ID 7, meet the requirements of 40 CFR 63 by meeting the requirements of Condition 25. No further requirements apply under 40 CFR 63.

[40 CFR 63.6590(c), Subpart ZZZZ]

30.3. For EU ID 8, comply with the following:

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

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

[40 CFR 71.6(a)(1)]
[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 30.3.a(i).

[40 CFR 71.6(a)(1)]
[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]

NESHAP Subpart ZZZZ General Requirements

d. You must be in compliance with the requirements under Condition 27 at all times.

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

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

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

f. Demonstrate continuous compliance with each requirement in Condition 30.3.a by:

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

(i) Operating and maintaining the stationary reciprocating internal combustion engine (RICE) according to the manufacturer's emission-related operation and maintenance instructions; or

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

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

g. You must install a non-resettable hour meter if one is not already installed.

[40 CFR 71.6(a)(3)]
[40 CFR 63.6625(f), Subpart ZZZZ]

h. You must operate the emergency stationary RICE according to the requirements in Conditions 30.3.h(i) through 30.3.h(iii). 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, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 30.3.h(i) through 30.3.h(iii), is prohibited. If you do not operate the engine according to the requirements in Conditions 30.3.h(i) through 30.3.h(iii), 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]

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

(ii) You may operate your emergency stationary RICE for any combination of the purposes specified in Condition 30.3.h(ii)(A) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 30.3.h(iii) counts as part of the 100 hours per calendar year allowed by this paragraph.

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

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

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

(iii) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing in Condition 30.3.h(ii).

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

NESHAP Subpart ZZZZ Reporting Requirements

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

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

j. Report all deviations as defined in NESHAP Subpart ZZZZ in the monitoring report required by Condition 64.

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

NESHAP Subpart ZZZZ Recordkeeping Requirements

k. 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 71.6(a)(3)(iii)]
[40 CFR 63.6655(e), Subpart ZZZZ]

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

m. 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.

n. 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 71.6(a)(3)(ii)]
[40 CFR 63.6660(a) through (c), Subpart ZZZZ]

40 CFR Part 82 Protection of Stratospheric Ozone

Subparts F, G, & H

31. 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]

32. 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]

33. Subpart H – Halon 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

34. 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)]

34.1. 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]

35. 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)]

36. 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

37. 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)]

38. 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)]

39. 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)]

40. **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]

41. **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

41.1. potential to emit of 530 tpy; or

41.2. 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]

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

42.1. 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 41.2. 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/.

42.2. 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.

42.3. 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.

42.4. 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 41.1.

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

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

[18 AAC 50.045(a)]

44. 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)]

44.1. 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 44.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

44.2. The Permittee shall report according to Condition 46.

45. 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)]

46. 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)]

46.1. **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 46.

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 46; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 46.

46.2. **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 46; and

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

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

a. With each operating report under Condition 64, 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 63.

47. 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[6] listed in Condition 25, 26, 27, or 31 (refrigerants),

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

47.2. report in accordance with Condition 63; 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

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

48.1. 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.

48.2. Include this condition in the annual certification required under Condition 65.

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

[6] 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

49. 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)]

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

[18 AAC 50.220(b)]

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

50.2. 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.

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

51.1. 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]

51.2. 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]

51.3. 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]

51.4. 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)]

51.5. 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]

51.6. 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]

51.7. 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]

52. 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)]

53. Test Exemption. Compliance with Conditions 55, 56 and 57 is not required for Method 9 Plan (Condition **Error! Reference source not found.**) or Smoke/No Smoke Plan (Condition **Error! Reference source not found.**) observations.

[18 AAC 50.345(a)]

54. 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)]

55. Test Plans. Except as provided in Condition 53, 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 49 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)]

56. Test Notification. Except as provided in Condition 53, 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)]

57. **Test Reports.** Except as provided in Condition 53, 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 60. 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)]

58. **Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 2 and 14.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

59. 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)]

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

59.2. 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

60. 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.

60.1. 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)]

61. 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.

61.1. 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)]

62. 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)]

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

63.1. **Excess Emissions Reporting**. Except as provided in Condition 46, 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 63.1.d.

d. Report all other excess emissions not described in Conditions 63.1.a, 63.1.b, and 63.1.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 64 for excess emissions that occurred during the period covered by the report, whichever is sooner.

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

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

63.2. **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 **Error! Reference source not found.** and **Error! Reference source not found.**).

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 64 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)]

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

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

64. Operating Reports. During the life of this permit[7], the Permittee shall submit to the Department an operating report in accordance with Conditions 60 and 61 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.

64.1. 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.

64.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 64.1, 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

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

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

64.3. when excess emissions or permit deviation reports have already been submitted under Condition 63 during the period covered by the operating report, the Permittee shall either

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

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

64.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions **Error! Reference source not found.**, **Error! Reference source not found.**, and 27.4 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.

64.5. **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)]

65. Annual Compliance Certification. Each year by March 31, compile and submit to the Department an annual compliance certification report according to Condition 61.

65.1. 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;

65.2. **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.

65.3. 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)]

66. 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:

66.1. **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.

66.2. **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 66.2.b(iv) through 66.2.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.

66.3. For reporting under Condition 66.2, the Permittee shall report the annual emissions and the required data elements under Condition 66.4 every third year for the previous calendar year as scheduled by the EPA.[8]

66.4. For each emissions unit and the stationary source, include in the report the required data elements[9] 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

66.5. 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), 50.326(j)(3), 50.346(b)(8), & 50.200]
[40 CFR 51.15, 51.30(a)(1) & (b)(1), & Appendix A to 40 CFR 51 Subpart A]

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

67.1. **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 64 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)]

67.2. **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)]

[8] 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.).

[9] 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

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

68.1. 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;

68.2. 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;

68.3. 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

68.4. 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)]

69. 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)]

70. 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:

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

70.2. 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;

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

70.4. 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)]

71. Operational Flexibility. CAA Section 502(b)(10)[10] 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.

71.1. For each such change, the notification required by Condition 71 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.

71.2. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 71.

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

72. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[11] 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)]

[10] 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.

[11] 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

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

73.1. included and specifically identified in the permit; or

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

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

74. 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

74.1. an enforcement action;

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

74.3. denial of an operating permit renewal application.

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

75. 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)]

76. 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)]

77. 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

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

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

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

77.4. 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)]

78. 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.

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

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

79.2. 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)]

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

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

Table C - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
1 & 2	40 CFR 60 Subpart GG	40 CFR 60.4305(b) Subpart KKKK provides an exemption for Subpart GG as follows: Stationary combustion turbines regulated under this subpart are exempt from the requirements of Subpart GG of this part.
1 & 2	40 CFR 63 Subpart YYYY	Stationary source is not a major source of HAPs.
3	40 CFR 60 Subpart D	Heat input capacity below threshold (250 MMBtu/hr).
3	40 CFR 60 Subpart Da	Heat input capacity below threshold (250 MMBtu/hr).
3	40 CFR 60 Subpart Db	Heat input capacity below threshold (100 MMBtu/hr).
3	40 CFR 63 Subpart JJJJJJ	This unit only burns natural gas and is not subject to this subpart.
Stationary source-wide	40 CFR 68 Accidental Release Prevention Requirements	There are no regulated substances present in any process above the threshold quantities.
Stationary source-wide	40 CFR 82 Subpart B	Stationary source does not service motor vehicle air conditioners.
Stationary source-wide	18 AAC 50.050	No affected emission units within stationary source.

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

Section 11. Visible Emissions Observation Form

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

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

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

Page No. _____

Stationary Source Name	Type of Emission Unit
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	Background Color
Start	Start
End	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 4. 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[12]

Soldotna Combustion Turbine Plant — **Stationary Source (Facility) Name**

AQ1189TVP02 — **Air Quality Permit Number.**

Alaska Electric and Energy Cooperative, Inc.

Company Name

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

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

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

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

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

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

☐ Excess Emissions – Complete Section 1 and Certify

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

☐ Deviation from Permit Condition – Complete Section 2 and Certify

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

☐ Deviations from COBC[13], CO[14], or Settlement Agreement – Complete Section 2 and Certify

[12] Revised as of July 22, 2020.
[13] Compliance Order By Consent
[14] 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 60.)*

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 60).

[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: _____