DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0417TVP04 Issue Date: [Public Comment - July 3, 2024]
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, **Savant Alaska, LLC**, for the operation of the **Badami Development Facility**.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

Citations listed herein are contained within the effective version of 18 AAC 50 at permit issuance. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

All currently applicable stationary source-specific terms and conditions of Air Quality Control Minor Permit Nos. AQ0417MSS05, AQ0417MSS06, and AQ0417MSS07 Revision 1, have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit No. AQ0417TVP03 expires.

This Operating Permit becomes effective <insert date—30 days after issue date>.

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
Administrator.....EPA and the Department
AOS .....Air Online Services
AS .....Alaska Statutes
ASTM.....American Society for Testing and Materials
BACT .....best available control technology
bHp .....brake horsepower
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
C.F.R. .....Code of Federal Regulations
CAA or The Act .Clean Air Act
CO .....carbon monoxide
CO_2e .....carbon dioxide equivalent
Department .....Alaska Department of Environmental Conservation
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....emissions unit
EU ID .....emissions unit identification number
°F .....degrees Fahrenheit
GACT .....generally available control technology
GAPCP .....Good Air Pollution Control Practice
GHG .....greenhouse gas
gr/dscf.....grain per dry standard cubic foot (1 pound = 7,000 grains)
gph.....gallons per hour
H_2S.....hydrogen sulfide
HAPs .....hazardous air pollutants [as defined in AS 46.14.990]
Hp.....horsepower
IUOSE .....intermittently used oilfield support equipment
kPa.....kiloPascals
LAER.....lowest achievable emission rate
MACT .....maximum achievable control technology [as defined in 40 C.F.R. 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 C.F.R. 61 and 63]
NH_3 .....ammonia
NO_x .....nitrogen oxides
N_2O .....nitrous oxide
NSPS .....New Source Performance Standards [as contained in 40 C.F.R. 60]
O & M .....operation and maintenance
O_2 .....oxygen
PAL .....plantwide applicability limitation
Pb .....lead
PM.....particulate matter
PM_{10} .....particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm .....parts per million
ppmv, ppmvd .....parts per million by volume on a dry basis
psi.....pounds per square inch
PSD .....prevention of significant deterioration
PTE .....potential to emit
SIC. .....Standard Industrial Classification
SIP.....State Implementation Plan
SPC .....Standard Permit Condition
SN …… Serial Number
SO_2 .....sulfur dioxide
tph .....tons per hour
TPY .....tons per year
VOC .....volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
vol% .....volume percent
wt% .....weight percent
wt% S_{fuel} .....weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:		**Savant Alaska, LLC** 188 Northern Lights Blvd. Suite 510 Anchorage, Alaska 99503
Stationary Source Name:		**Badami Development Facility**
Location:		70º 09´ 03.62" North; 147º 05´ 50.05" West
Physical Address:		Badami Unit, North Slope Prudhoe Bay, Alaska
Owner:		**Savant Alaska, LLC** 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503
Operator:		Savant Alaska, LLC 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503
Permittee's Responsible Official:		David Pascal, Chief Operating Officer 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503
Designated Agent:		Perkins Coie LLP Elena Romerdahl 1029 West Third Avenue, Suite 300 Anchorage, Alaska 99501
Stationary Source and Building Contact:		Lynnette Peluso, Regulatory & Compliance Lead 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503 (907) 433-3829 lpeluso@glacieroil.com
Fee Contact:		Lynnette Peluso, Regulatory & Compliance Lead 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503 (907) 433-3829 lpeluso@glacieroil.com
Permit Contact:		Lynnette Peluso, Regulatory & Compliance Lead 188 Northern Lights Blvd., Suite 510 Anchorage, Alaska 99503 (907) 433-3829 lpeluso@glacieroil.com
Process Description:	SIC Code	1311 - Crude Oil and Natural Gas Production
	NAICS Code:	211120, 211130 - Crude Petroleum, Natural Gas Extraction

[18 AAC 50.040(j)(3) & 50.326(a)]
[40 C.F.R. 71.5(c)(1) & (2)]

Section 2. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Rating/Size	Installation or Construction Date
420a[1]	Generator	Cummins QSK50-GR SN 25384677	1,971 Hp	Constructed 2012; Installed April 2013
421a[2]	Generator	Cummins QSK50-G4 SN 33183042	1,971 Hp	Constructed 2010; Installed April 5, 2011
422[3]	Incinerator	Smart Ash 100-A	0.035 tons/hr	2003
500	Turbine	Solar Mars 90 SN 0456M	11,862 kW	1998
501	Turbine	Solar Mars 90 SN 0455M	11,862 kW	1998
502[3]	Incinerator	Therm-Tec-G-12	85.0 lb/hr	1998
503	Production Heater	NATCO SN SA300	34 MMBtu/hr	1998
505	TEG Reboiler	NATCO SN 8001-41	1.34 MMBtu/hr	1998
507	Flare	Mac Ignitor 100 Series	257.9 MMscf/yr	1998
Drill Rig Equipment[4]				
1	Rig Engines	Various	Various	Various
8[5]	Rig Boilers and Heaters	Various	Various	Various

Notes:

1. EU ID 420a replaced EU ID 420; this replacement was an off-permit change allowed under 40 C.F.R. 71.6(a)(12), adopted by reference in 18 AAC 50.326(j)(4).
2. EU ID 421a replaced EU ID 421, authorized by Permit No. AQ0417MSS03 issued on October 20, 2010.
3. EU IDs 422 and 502 are considered insignificant on an actual emission basis under 18 AAC 50.326(e). These emission units are listed in Table A because they are significant on a potential to emit (PTE) basis under 18 AAC 50.326(e).
4. The Permittee is authorized to operate any of the drill rigs with a cumulative rating equal to or less than 12,596 bhp (Doyon 25), which was the maximum bhp rating of the largest drill rig in AQ0455TVP01 before its rescission, as specified in AQ0417MSS07.
5. EU ID 8 consists of small boilers and heaters that are considered insignificant on potential and/or actual emission basis. This emission unit is listed in Table A because the unit(s) are subject to Title I permit requirements.

[18 AAC 50.326(a)]
[40 C.F.R. 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 8, 420a, 421a, 500, 501, 503, 505, and 507 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs 420a and 421a, monitor, record, and report in accordance with Conditions 3 through 5.

1.2. For EU ID 8, monitoring shall consist of an annual compliance certification under Condition 92 for the visible emissions standard based on reasonable inquiry.

1.3. For EU IDs 500, 501, 503, and 505, burn only gas as fuel. In each operating report under Condition 91 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 90 if any fuel other than gas is burned in any of these emissions units.

1.4. For EU ID 507, monitor, record, and report in accordance with Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3) & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

2. **Incinerator Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust effluent of the incinerators, EU IDs 422 and 502, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j)(4) & 50.050(a))]
[40 C.F.R. 71.6(a)(1)]

2.1. Observe emissions for 18 consecutive minutes to obtain a minimum of 72 observations in accordance with Method 9 of 40 C.F.R. 60, Appendix A, at least once every 12 calendar months.

2.2. Record and report in accordance with Conditions 4.1.a through 5.3.a.

2.3. If any monitoring under Condition 2.1 was not performed, report under Condition 90 within three days of the date the monitoring was required.

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

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

Liquid Fuel-Burning Equipment

3. Visible Emissions Monitoring. When required by Condition 1.1 or in the event of replacement[1] during the permit term, the Permittee shall observe the exhaust of EU IDs 420a and 421a for visible emissions using the Method 9 Plan under Condition 3.2.

3.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule specified in Conditions 3.2.b through 3.2.e that remains in effect from a previous permit.

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

a. First Method 9 Observation. Except as provided in Condition 3.1, observe the exhausts of EU IDs 420a and 421a according to the following criteria:

(i) Except as provided in Condition 3.2.a(ii), for any of EU IDs 420a and 421a, observe exhaust within six months after the effective date of this permit.

(ii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[3] Except as provided in Condition 3.2.e, after the First Method 9 observation:

(A) For EU IDs 420a and 421a, continue with the monitoring schedule of the replaced emissions unit.

b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 3.2.a, perform observations at least once in each calendar month that the emissions unit operates.

c. Semiannual Method 9 Observations. After at least three monthly observations under Condition 3.2.b unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations

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

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

[1] *"Replacement,"* as defined in 40 C.F.R. 51.166(b)(32).
[2] Visible emissions observations are not required during emergency operations.
[3] "*Fully operational*" means upon completion of all functionality checks and commissioning after unit installation. "*Installation*" is complete when the unit is ready for functionality checks to begin.

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 3.2.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations

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

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

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 3.2.b, and continue monitoring in accordance with the Method 9 Plan.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

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

4.1. For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in Section 11;

(ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate or best estimate, if unknown) on the sheet at the time opacity observations are initiated and completed;

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

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

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

b. To determine the six-minute average opacity,

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

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

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

(iv) record the average opacity on the sheet.

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

4.2. The records required by Conditions 4.1 may be kept in electronic format.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

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

5.1. In the first operating report required in Condition 91 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.

5.2. Include in each operating report required under Condition 91 for the period covered by the report:

a. for all Method 9 Plan observations:

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

(ii) a summary to include:

(A) number of days observations were made;

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

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

b. a summary of any monitoring or recordkeeping required under Conditions 3 and 4 that was not done.

5.3. Report under Condition 90:

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

b. if any monitoring under Condition 3 was not performed when required, report within three days of the date that the monitoring was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

Flares

6. Visible Emissions MR&R. The Permittee shall monitor, record, and report as follows:

6.1. Observe flare events[4] on EU ID 507, for visible emissions following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations according to the following schedule:

a. Conduct subsequent visible emissions observations within 14 months of, but not earlier than three months after, the preceding flare event visible emissions observation.

b. If there are no flare events that meet the requirements of Condition 6.1.a, the Permittee shall observe the next daylight flare event.

6.2. Record the following information for observed flare event:

a. the flare EU ID number;

b. results of the Method-9 observations;

c. reason for flaring;

d. date, beginning and ending time of event; and

e. volume of gas flared.

6.3. The records by Condition 6.2 may be kept in electronic format.

6.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.

6.5. Include the following in the operating report required by Condition 91 for the period covered by the report:

a. copies of the records required by Condition 6.2; and

b. if an annual flare event observation required by Condition 6.1.a has not been fulfilled for the year and/or monitoring of a flare event is postponed, an explanation of the reason the event was not monitored.

6.6. Report under Condition 90

a. whenever the visible emissions standard in Condition 1 is exceeded; or

[4] For purposes of this permit, a *"flare event"* is flaring of gas during daylight for greater than one hour as a result of scheduled release operations; i.e., maintenance or well testing activities. It does not include non-scheduled release operations; i.e., process upsets, emergency flaring, or de-minimis venting of gas incidental to normal operations.

b. the monitoring required under Condition 6.1 is not completed, except as allowed under Condition 6.4.

6.7. If no flare events are monitored during a certification period, the Permittee shall certify compliance under Condition 92 with the visible emissions standard in Condition 1 based on reasonable inquiry.

[18 AAC 50.040(j)(4), 50.326(j)(3) & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i) - (iii)]

Particulate Matter (PM) Emissions Standard

7. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 8, 420a, 421a, 500, 501, 503, 505, and 507 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 C.F.R. 71.6(a)(1)]

7.1. For EU IDs 420a and 421a, monitor, record, and report in accordance with Conditions 8 through 10.

7.2. For EU ID 8, the Permittee must annually certify compliance under Condition 92 for the PM emissions standard based on reasonable inquiry.

7.3. For EU IDs 500, 501, 503, and 505, the Permittee shall comply with Condition 1.3.

7.4. For EU ID 507, the Permittee shall comply with Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

PM MR&R

Liquid Fuel-Burning Engines

8. PM Monitoring. The Permittee shall conduct source tests on EU IDs 420a and 421a to determine the concentration of PM in the exhaust of each emissions unit as follows:

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

8.1. If the result of any Method 9 observation conducted under Condition 3.2 for any of EU IDs 420a and 421a is greater than the criteria of Condition 8.2.a or Condition 8.2.b, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 8.2; or

b. except as exempted in Condition 8.4, conduct a PM source test according to requirements set out in Section 6.

8.2. Take corrective action or conduct a PM source test, in accordance with Condition 8.1, if any Method 9 observation under Condition 3.2 results in an 18-minute average opacity greater than

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

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

8.3. During each one-hour PM source test run under Condition 8.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

8.4. The PM source test requirements in Condition 8.1.b are waived for an emissions unit if

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

b. corrective action was taken to reduce visible emissions and the next two scheduled 18-minute Method 9 visible emissions observations (as described in Condition 3.2) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 8.2.

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

9.1. Keep records of the results of any source test and visible emissions observations conducted under Condition 8.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

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

10.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 8.2.a or Condition 8.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 8.2.

10.2. In each operating report under Condition 91, include:

a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 8; and

b. copies of any visible emissions observation results greater than the thresholds of Condition 8.2, if they were not already submitted.

10.3. Report in accordance with Condition 90:

a. anytime the results of a PM source test exceed the PM emissions standard in Condition 7; or

b. if the requirements under Condition 8.1 were triggered and the Permittee did not comply on time with either Condition 8.1.a or 8.1.b. Report the deviation within 24 hours of the date compliance with Condition 8.1 was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

Sulfur Compound Emissions Standard

11. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 8, 420a, 421a, 500, 501, 503, 505, and 507 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 C.F.R. 71.6(a)(1)]

Sulfur Compound MR&R

Fuel Oil[5] (EU IDs 8, 420a, and 421a)

12. Sulfur Compound Monitoring and Recordkeeping. For EU IDs 8, 420a, and 421a, to ensure compliance with Condition 11, the Permittee shall comply with the fuel sulfur content limit and associated MR&R requirements in Condition 21. The Permittee shall monitor and keep records, as follows:

12.1. Comply with either Condition 12.1.a or Condition 12.1.b:

a. For each shipment of fuel:

(i) If the fuel grade requires a sulfur content 0.15 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 0.15 $wt\%S_{fuel}$ or less, keep receipts that specify fuel grade and amount; and

(A) test the fuel for sulfur content; or

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

b. Test the sulfur content of the fuel in each storage tank that supplies fuel to EU IDs 8, 420a, and 421a at least monthly.

12.2. Fuel testing under Condition 12.1.a or Condition 12.1.b must follow an appropriate method listed in 18 AAC 50.035(b) through (c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

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

12.3. If a shipment of fuel contains greater than 0.15 wt%S_{fuel} or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.15 wt%Sfuel, 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 C.F.R. 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 C.F.R. 71.6(a)(3)(i) & (ii)]

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

13.1. If SO_2 emissions calculated under Condition 12.3 exceeds the standards of Condition 11, the Permittee shall report in accordance with Condition 90. When reporting under this condition, include the calculation under Condition 12.3.

13.2. The Permittee shall include in the operating report required by Condition 91 for each month covered by the report:

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

b. for any fuel received with a fuel sulfur content greater than 0.15 wt%S_{fuel}, the fuel sulfur content of the shipment;

c. the results of all fuel sulfur analyses conducted under Condition 12.1.a or Condition 12.1.b and documentation of the method(s) used to complete the analyses; and

d. for any fuel received with a sulfur content greater than 0.15 wt%S_{fuel}, the calculated SO_2 emissions in ppm calculated under Condition 12.3.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

North Slope Liquid Fuel (EU IDs 8, 420a, and 421a)

14. Sulfur Compound MR&R. For liquid fuel from a North Slope topping plant, the Permittee shall comply with the following:

14.1. Obtain from the topping plant the results of a monthly fuel sulfur analysis;

14.2. Include in the operating report required by Condition 91 a list of the sulfur content measured for each month covered by the report; and

14.3. Report under Condition 90 whenever the fuel combusted causes sulfur compound emissions to exceed the standards of Condition 11. When reporting under this condition, include the calculation under Condition 12.3.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3) (i) - (iii)]

Fuel Gas (EU IDs 8, 500, 501, 503, 505, and 507)

15. Sulfur Compound Monitoring. For EU IDs 8, 500, 501, 503, 505, and 507, to ensure compliance with Condition 11, the Permittee shall comply with the fuel sulfur content limit and associated MR&R requirements in Condition 20. The Permittee shall either

15.1. obtain a semiannual[6] statement from the fuel supplier of the fuel total sulfur level in ppm; or

15.2. analyze a representative sample of the fuel semiannually[7] 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) through (c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

16. Sulfur Compound Recordkeeping. The Permittee shall keep records of the semiannual statement from the fuel supplier or the sulfur content analysis required under Conditions 15.1 or 15.2.

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

17.1. Report as excess emissions, in accordance with Condition 90, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 11.

17.2. Include copies of the records required by Condition 16 with the operating report required by Condition 91 for the period covered by the report.

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Preconstruction Permit [8] Requirements

Limits to Protect Ambient Air Quality Standards

18. Fuel Gas and Produced Gas Flaring Limits. Flare fuel gas and produced gas during routine or non-routine maintenance activities and other planned events. The Permittee shall flare fuel gas and produced gas quantities no greater than 152 MMscf of fuel gas and produced gas during any consecutive 12-month period, at a rate of no greater than 20 MMscf per day.

18.1. Record the date and duration when fuel gas and produced gas flaring occurs and the quantity of fuel gas and produced gas fired.

[6] The EPA-approved Alternative Monitoring Plan (AMP, 11/12/98) under NSPS Subpart GG Condition 45.1.d(ii)(B) requires quarterly monitoring for six calendar quarters, then reduced monitoring to semiannually if H_2S results are below 80 ppm.

[7] Refer to Footnote 8.

[8] *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.

18.2. Report in the operating report required by Condition 91, the date and duration of fuel gas and produced gas flaring and the total quantity of fuel gas and produced gas flared during the applicable reporting period; describe or document whether the flaring incident is considered an emergency operation, routine or non-routine maintenance operation, or other planned event.

18.3. Report in accordance with Condition 90 if any of the limits in Condition 18 are exceeded.

[Condition 7.1, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

19. Air Quality Boundary. Establish and maintain the ambient boundaries used in the ambient impact analysis using the following procedures:

19.1. Comply with the May 10, 2005 "CPF Pad Badami Unit – Public Access Control Plan" (Public Access Control Plan), or a subsequent written version approved by the Department that contains at least the following elements:

a. A topographic map (or maps) that clearly shows the ambient boundaries, water bodies and Central Process Facility (CPF) pad;

b. Ambient boundaries that are consistent with the land-owner's authorization to preclude public access from the area within the boundaries;

c. Defined methods of establishing and maintaining the boundary; and

d. The date of the revised Public Access Control Plan.

19.2. Do not revise the ambient air boundaries without Department approval. If requested by the Department, submit a revised ambient air impact analysis that demonstrates the emission activities will not cause or contribute to ambient air violations when using the proposed boundary.

19.3. Submit all proposed revisions of the Public Access Control Plan, including the ambient boundary, to the Department's Juneau and Fairbanks offices. Do not implement any change without written Department approval.

[Condition 8, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

20. Fuel Gas and Produced Gas Sulfur Limit. Operate EU IDs 1, 8, 500, 501, 503, and 505 using fuel gas with an H_2S content not to exceed 250 ppmv and operate EU ID 507 using fuel gas and produced gas with an H_2S content not to exceed 250 ppmv.

20.1. Monitor, record, and report in accordance with Conditions 15 through 17.

20.2. Report in accordance with Condition 90 if the fuel H_2S content limit in Condition 20 is exceeded.

[Condition 7.1, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

21. Diesel Fuel Sulfur Limit.[9] Operate EU IDs 1, 8, 420a, and 421a using diesel fuel with a fuel sulfur content not to exceed 0.15 percent sulfur by weight (wt% S_{fuel}).

21.1. Monitor, record, and report in accordance with Conditions 12 through 14.

21.2. Report in accordance with Condition 90 if the fuel sulfur content limit in Condition 21 is exceeded.

[Condition 8, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

22. Liquid Fuel Consumption Limit. For EU IDs 420a and 421a, the Permittee shall burn a combined total of no more than 800,000 gallons of liquid fuel during any consecutive 12-month period.

22.1. Install and operate a dedicated fuel meter accurate to less than five percent error for EU ID 420a and 421a combined; and install and operate a dedicated continuous engine hour monitoring system for each unit.

22.2. Monitor and record the monthly fuel consumption for EU IDs 420a and 421a combined, and the monthly hours of operation for each unit.

22.3. Except as provided in Condition 22.4, calculate and record the consecutive 12-month combined fuel consumption using fuel meter data.

22.4. If the fuel meter for EU IDs 420a and 421a is out of service, estimate the gallons of fuel consumed for the emission units using the hours of operation recorded in Condition 22.2, assuming the 100 percent load fuel consumption rate in gallons per hour for the unit for any period during which the unit was operating. The fuel consumption rate shall be the design fuel consumption of 97.8 gallons per hour.

22.5. Report in the operating report required by Condition 91:

a. The monthly and consecutive 12-month total fuel consumption for EU IDs 420a and 421a combined; and

b. If the hours of operation were used to calculate the fuel use for any part of the 12 month rolling period as described in Condition 22.4, report the monthly and consecutive 12-month hours of operation for EU IDs 420a and 421a.

22.6. Report in accordance with Condition 90 if the limit in Condition 22 is exceeded.

[Condition 10, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

[9] This permit does not impose fuel sulfur restrictions on intermittently used oil field support equipment (IUOSE). The Department has instead established off-permit fuel sulfur targets for these units in Policy and Procedure Number 04.02.105 (effective 11/20/06).

23. Fuel consumption limit. In all drill rig emission units, EU IDs 1 and 8 listed in Table A, the Permittee shall burn a combined total of no more than 9,000 gallons of liquid fuel per day and 950,000 gallons of liquid fuel during any consecutive 12-month period.

23.1. Monitor and record for each operational day, the quantity of fuel combusted in all drill rig emission units, combined. Monitor fuel gas consumption using non-resettable fuel flow meters.

23.2. Calculate and record the daily combined, and consecutive 12-month combined, total fuel consumption in gallons. For units that are fired with fuel gas, convert the quantity of fuel gas burned (in standard cubic feet (scf)) into a diesel gallon equivalent using the conversion factor of 115 scf of fuel gas to one gallon diesel fuel.

23.3. Report in the operating report required by Condition 91, the maximum daily fuel consumption and the consecutive 12-month total fuel consumption in gallons for all drill rig emission units combined, for each month of the reporting period.

23.4. Report as a permit deviation, in accordance with Condition 90 any time the fuel consumption exceeds a limit specified in Condition 23.

[Condition 4, Minor Permit No. AQ0417MSS07 Rev. 1, July 8, 2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Best Available Control Technology (BACT) Limits

24. BACT Controls and Limits. The Permittee shall install emission or operational controls as BACT for the following equipment:

24.1. NO_x BACT for fuel burning equipment at Badami Development Facility is no post-combustion emission control with good operational practices. The Permittee shall:

a. Install and operate as BACT for the following fuel burning equipment at Badami Development Facility:

(i) EU ID 420a and EU ID 421a with a modular common rail system (MCRS) as incorporated by the manufacturer;

(ii) EU IDs 500 and 501 with dry low NO_x combustion technology (SoLo NO_x);

(iii) EU ID 503 with low NO_x burners/flue gas recirculation; and

(iv) EU ID 505 with conventional burner technology.

b. Comply with the following NO_x emission limits:

(i) EU IDs 500 and 501 shall not exceed 28.4 lb NO_x /hr for operation under all conditions, and shall not exceed 85 ppmv corrected to 15 percent oxygen in SoLoNO_x mode and at ambient temperatures above 0°F;

(ii) EU ID 503 shall not exceed 0.095 lb NO_x /MMBtu; and

(iii) EU ID 505 shall not exceed 0.08 lb NO_x /MMBtu.

24.2. CO BACT for fuel burning equipment at Badami Development Facility is no post-combustion emission control with good operational practices. The Permittee shall:

a. Comply with the following CO emission limits as representative of BACT:

(i) EU IDs 500 and 501 shall not exceed 50 ppmv corrected to 15 percent oxygen when operating at 100 percent load in $SoLoNO_x$ mode at ambient temperatures above 0°F, 14 lb/hr when operating in $SoLoNO_x$ mode and at ambient temperatures above 0°F, and 385 lb/hr for operation under all other conditions;

(ii) EU ID 503 shall not exceed 3.4 lb CO/hr; and

(iii) EU ID 505 shall not exceed 0.15 lb CO/MMBtu.

b. Limit CO emissions from EU IDs 500 and 501, combined, to no greater than 336 tons per consecutive 12-month period.

24.3. SO_2 BACT for fuel burning equipment is use of low sulfur fuel with no post-combustion controls. The Permittee shall:

a. Comply with the following fuel sulfur limits as representative of BACT:

(i) H_2S content of fuel gas and produced gas fuel shall not exceed 250 ppmv; and

(ii) Sulfur content of fuel oil shall not exceed 0.15 wt% S.

24.4. VOC BACT for fuel burning equipment and fuel storage tanks, and water treatment processes is no controls with good operation practices. BACT for water injection tanks and slop tank is a sealed system design. The flare BACT determination is smokeless tip design. No emission limits are imposed as representing BACT.

24.5. PM_{10} BACT for fuel burning equipment is no controls with good operation practices. The Permittee shall:

a. Comply with the following opacity limits as representative of BACT surrogate PM_{10} emission limits:

(i) Visible emissions from EU IDs 420a and 421a shall not exceed 20 percent opacity averaged over any six consecutive minutes, except as described in Condition 24.5.a(ii); and

(ii) If both oil and gas production cease for 30 consecutive days, EU IDs 420a and 421a shall not exceed 10 percent opacity averaged over any six consecutive minutes, until oil and gas production resumes.

(iii) Visible emissions from EU IDs 500 and 501 shall not exceed 10 percent opacity averaged over any six consecutive minutes.

(iv) All other industrial processes, incinerators, and fuel burning equipment shall comply with the applicable State visible emission standards listed in Conditions 1 and 28.1.

[Condition 12.1a & 12.1c-12.1f, Minor Permit No. AQ0417MSS05, April 26, 2013]
[Condition 2, Minor Permit No. AQ0417MSS06, April 27, 2015]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3]

25. BACT Monitoring, Recordkeeping, and Reporting. The Permittee shall monitor, record, and report as follows:

25.1. NO_x and CO – To demonstrate compliance with the short-term NO_x and CO BACT limits specified in Conditions 24.1.b and 24.2.a, the Permittee shall conduct source testing on EU IDs 500, 501, and 503, in accordance with Section 6 and as follows:

a. For EU IDs 500 and 501:

(i) Conduct source tests during the summer months (April through September) and during winter months (October through March).

(ii) During this permit term, the first summer test on EU IDs 500 and 501 shall be done within 12 months of the effective date of this permit and the second test (winter) during the life of this permit, except as follows:

(A) If results of the previous winter source tests conducted in March 2023 shows that the winter test results are higher than the summer source test results conducted under this permit in all test runs at similar operating loads, the Permittee may elect to conduct source tests on EU IDs 500 or 501 once every five years during winter months only.

(iii) For NO_x, conduct source testing at the highest typical operating load of the unit. For units of the same make, model, and design, one unit within the group can be tested. The source test report shall provide NO_x emissions (average of three valid one-hour-run results) in ppmv and in lb/hr for each unit tested. At the Permittee's discretion, the NO_x BACT source test in this sub-condition may be conducted in conjunction with NSPS Subpart GG NO_x source test required under Condition 42.1.a.

(iv) For CO, conduct source testing at no less than four loads representative of the turbine's typical operating range. For units of the same make, model, and design, one unit within the group can be tested. The source test report shall provide CO emissions (average of three valid one-hour-test run results) in ppmv and in lb/hr for each unit tested.

b. For EU ID 503, conduct NO_x and CO emission source tests as follows:

(i) once within five years from the most recent source test conducted on the unit;

(ii) at the highest typical operating load of the unit; and

(iii) provide in the source test report NO_x and CO emissions results in lb/MMBtu (average of three valid one-hour-run results).

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

25.2. CO – For EU IDs 500 and 501, monitor, record, and report, as follows:

a. Using the existing computer-based control system, monitor and record:

(i) operating time in hours (record time in minutes or decimal portions of an hour);

(ii) for each hour, the average percentage natural gas producer (% NGP) speed (use six-minute intervals to calculate the average % NGP speed for each hour of operation); and

(iii) for each hour, time in and out of $SoLoNO_x$ operation for each unit.

b. Calculate and record the hourly CO emissions for EU IDs 500 and 501. Use the $SoLoNO_x$ mode and the hourly average percentage NGP speed (as determined in Condition 25.2.a(ii)) to determine the appropriate CO emission factors listed in Table B or alternate CO emission factors approved in writing by the Department. Multiply the appropriate CO emission factor by the associated hours of operation to get hourly CO emissions.

c. On a calendar month basis, calculate and record the total monthly and consecutive 12-month period CO emissions for EU IDs 500 and 501 individually, and EU ID 500 and 501 combined.

d. Report in the operating report required by Condition 91, the monthly and consecutive 12-month total CO emissions for EU IDs 500 and 501, each, and the combined total.

Table B – EU ID 500 and 501 Turbine CO Emission Factors

Emission Unit IDs	$SoLoNO_x$ Mode	Gas Turbine Load Condition (% NGP speed average hourly value)	CO Emission Factor
500 & 501	In $SoLoNO_x$ Mode		4.7 lb/hr
	Out of $SoLoNO_x$ Mode	% NGP ≥ 94	4.7 lb/hr
		% NGP ≥ 90 and < 94	202.0 lb/hr
		% NGP ≥ 87 and < 90	236.0 lb/hr
		% NGP ≥ 84 and < 87	261.9 lb/hr
		% NGP < 84	385 lb/hr

25.3. SO_2 – Conduct fuel sulfur monitoring, recordkeeping and reporting in Conditions 12 through 17 to ensure compliance with SO_2 BACT limits in Condition 24.3.

25.4. PM – Conduct visible emission monitoring as follows:

a. For EU IDs 420a and 421a, continue to conduct Method 9 visible emissions observations using monitoring, recordkeeping and reporting procedures detailed in Conditions 3 through 5. Indicate on the Visible Emissions Observation Form in Section 11 if the unit observed is subject to the 10 percent opacity limit as surrogate PM_{10} BACT limit described in Condition 24.5.a(ii).

b. For EU IDs 500 and 501, comply with Condition 1.3.

25.5. Report in accordance with Condition 90 if any of the BACT limits under Condition 24 are exceeded.

[Conditions 12.2 and 12.3, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Restart Project

26. Limits on Use of Load Banks. Except as provided in Condition 27, after February 1, 2013, the Permittee shall not use load banks, water brakes, pump flow controls or other loads that have the single purpose to destroy energy in order to improve the CO emission performance of EU IDs 500 and 501. For purposes of this permit, a load bank is a resistance device that performs no process or space heating function.

[Condition 13, Minor Permit NO. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

27. Load Bank Exception. The Permittee may use a load bank on a short-term basis to address intermittent power fluctuations that may occur as a result of bringing on a second turbine for project ramp-up, with the plan of operating both turbines simultaneously. Monitor, record, and report, as follows:

27.1. Record each change in the load bank power use in kW in a written log, noting date, time, and "before" and "after" settings of load bank power use:

a. At each instance the load is adjusted; and

b. Twice daily coincident with physical inspections of the load bank, whenever load bank is receiving power.

27.2. Report in the operating report required by Condition 91:

a. The number of hours the load bank was used; and

b. A statement whether the load bank was used to address intermittent power fluctuations as a result of bringing on a second turbine for project ramp-up.

27.3. Report in accordance with Condition 90 if load banks were used for purposes other than to address intermittent power fluctuations, as a result of bringing on a second turbine for project ramp-up as specified in Condition 27.

[Condition 14, Minor Permit No. AQ0417MSS05, April 26, 2013]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Insignificant Emissions Units

28. 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:

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

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

28.2. **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)]

28.3. **Sulfur Compound 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)]

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

a. Submit the compliance certifications of Condition 92 based on reasonable inquiry;

b. Comply with the requirements of Condition 73; and

c. Report in the operating report required by Condition 91 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds.

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 28.1, 28.2, and 28.3.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(b)(4)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

Section 4. Federal Requirements

40 C.F.R. Part 60 New Source Performance Standards (NSPS)

NSPS Subpart A – General Provisions

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

[18 AAC 50.035 & 50.040(a)(1)]
[40 C.F.R. 60.7(a) & 60.15(d), Subpart A]

29.1. a notification of the date construction (or reconstruction as defined under 40 C.F.R. 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 C.F.R. 60.7(a)(1), Subpart A]

29.2. a notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date;

[40 C.F.R. 60.7(a)(3), Subpart A]

29.3. 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 C.F.R. 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include: [13]

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 C.F.R. 60.7(a)(4), Subpart A]

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

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

[11] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in 40 C.F.R. Part 60, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2.

[12] The Department defines the "the Administrator" to mean "the EPA and the Department."

[13] The Department and EPA may request additional relevant information subsequent to this notice.

[40 C.F.R. 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.

30. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 500, 501, and 503, any malfunction of the air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 500, 501, and 503 are inoperative.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.7(b), Subpart A]

31. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit excess emissions and monitoring systems performance (EEMSP)[14] report and/or summary report form (see Condition 32) 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 C.F.R. 60.7(c), Subpart A]

31.1. The magnitude of excess emissions computed in accordance with Condition 44.1.a, 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 C.F.R. 60.7(c)(1), Subpart A]

[14] The federal EEMSP report is not the same as the state excess emission report required by Condition 90. Excess emissions are defined in applicable subparts.

31.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 500 and 501; the nature and cause of any malfunction (if known); and the corrective action taken or preventative measures adopted.

[40 C.F.R. 60.7(c)(2), Subpart A]

31.3. 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 C.F.R. 60.7(c)(3), Subpart A]

31.4. 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 C.F.R. 60.7(c)(4), Subpart A]

32. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A to the Statement of Basis) for each pollutant monitored for EU IDs 500 and 501. Except as provided in Condition 44.4.d, the report shall be submitted semiannually, postmarked by the 30th day following the end of each six-month period, except when more frequent reporting is specifically required by an applicable subpart or the EPA, as follows:

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.7(c) & (d), Subpart A]

32.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form **unless** the EEMSP report described in Condition 31 is requested, or

[40 C.F.R. 60.7(d)(1), Subpart A]

32.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP report** described in Condition 31.

[40 C.F.R. 60.7(d)(2), Subpart A]

33. NSPS Subpart A Recordkeeping. For EU IDs 500 and 501, the Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 C.F.R. Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years, in accordance with Condition 86, following the date of such measurements, maintenance, reports, and records.

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

34. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to 40 C.F.R. 60.8 and Section 6 on any affected facility at such times as may be required by the Administrator, and shall provide the Department and EPA with a written report of the results of the source test.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.8(a), Subpart A]

35. NSPS Subpart A Good Air Pollution Control Practice (GAPCP). At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 500, 501, and 503 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 500, 501, and 503.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.11(d), Subpart A]

36. 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 41 and 43, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 420a, 421a, 500, and 501 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.11(g), Subpart A]

37. 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 Conditions 41, 43, and 48.1. 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 C.F.R. 60.12, Subpart A]

NSPS Subpart Dc – Steam Generating Units, EU ID 503

38. NSPS Subpart Dc Applicability. For EU ID 503 listed in Table A, the Permittee shall comply with the applicable requirements for Steam Generating Units, which commenced construction, modification, or reconstruction after June 9, 1989, and have maximum design heat input capacity of 29 megawatts (100 MMBtu/h) or less, but greater than or equal to 2.9 megawatts (10 MMBtu/h).

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

[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.40c(a), Subpart Dc]

39. NSPS Subpart Dc Fuel Consumption. The Permittee shall record the amount of each fuel combusted during each operating month and maintain the records for a period of two years following the date of such record; or monitor according to an EPA approved custom fuel-monitoring schedule. The Permittee shall determine fuel consumption in EU ID 503, as follows:

[18 AAC 50.040(a)(2)(D)]
[40 C.F.R. 60.48c(g)(2) and 60.48c(i), Subpart Dc]

39.1. Unless otherwise approved, the Permittee shall maintain a record of the amount of fuel combusted on a quarterly basis for EU ID 503.

[Alternative Monitoring Plan, 1/28/99]

NSPS Subpart GG[15] – Stationary Gas Turbines, EU IDs 500 and 501

40. NSPS Subpart GG Applicability. For EU IDs 500 and 501 listed in Table A, the Permittee shall comply with the applicable requirements for stationary gas turbines, which commenced construction, modification, or reconstruction after October 3, 1977, with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour based on the lower heating value of the fuel fired.

[18 AAC 50.040(a)(2)(V) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.330(a) & (b), Subpart GG]

40.1. *Emergency Fuel[16] Exemption.* Stationary gas turbines when fired with natural gas are exempt from NSPS Subpart GG NO_x standards under 40 C.F.R. 60.332(a)(2), set out under Condition 41, when being fired with an emergency fuel. The Permittee shall

a. include in the report required in Condition 31 each period during which an exemption is in effect; and

b. report for each period, the type, reasons, and duration of the firing of the emergency fuel.

[40 C.F.R. 60.332(k), Subpart GG]

40.2. *Turbine Engine Replacements*. The Permittee may replace turbine engines of the same make and model as EU IDs 500 and 501 to allow for maintenance.

a. For a turbine engine replacement, the Permittee shall comply with the requirements of NSPS Subpart GG as set out in Conditions 40 through 44 and may elect to continue the performance testing schedule in effect for the turbine at the time of engine replacement.

[15] The provisions of NSPS Subpart GG listed in Conditions 40 through 44 are current as amended through Feb. 27, 2014. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[16] *Emergency fuel* is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.

b. The Permittee shall maintain, for each turbine engine, records of the maintenance, repairs, and parts replacement. Each record shall include the date of each servicing, the service performed, and the costs of the service.

c. The Permittee shall maintain records of the following information each time a turbine engine is switched into service:

(i) The date the switch occurred; and

(ii) Identification of the removed turbine engine and the substitute turbine engine by make, model, date of manufacture, serial number, maximum heat input, and location.

d. The Permittee shall notify the Department in writing no later than 14 days after any rotation of a Subpart GG turbine engine into an operating turbine engine position.

e. The Permittee shall submit a copy of the records required by Condition 40.2.c with the operating report for all turbine engines switched during the reporting period.

[EPA Letter, Gas Turbine Definition and Modification Issues, Jeff KenKnight 0300105, 09/08/03]
[18 AAC 50.040(j) & 50.326(j)]

41. NSPS Subpart GG NO_x Standard. The Permittee shall not allow the exhaust gas concentration of NO_x, on a dry exhaust basis at 15 percent oxygen (O_2) and ISO standard day conditions,[17] from EU IDs 500 and 501 listed in Table A to exceed 191 ppmv.

[18 AAC 50.040(a)(2)(V), (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.332(a)(2) & (d), Subpart GG]

42. NSPS Subpart GG NO_x MR&R Requirements. The Permittee shall monitor, record, and report compliance with the respective Subpart GG NO_x standard under Condition 41, as follows:

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

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(i) & (c)(6)]

a. **Periodic Testing.** For each turbine subject to Condition 41 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 42.1.a(i) or 42.1.a(ii).

(i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 41, the Permittee shall conduct a NO_x and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, within the first applicable criteria below:

[17] *ISO (International Organization for Standardization) standard day conditions* means 288 degrees Kelvin (59 degrees F), 60 percent relative humidity and 101.3 kilopascals (14.7 psi) pressure. [ref. 40 C.F.R. 60.331(g)]

(A) Within 5 years of the latest performance test, or

(B) Within 1 year of the effective date of this permit if the last source test occurred greater than five years prior to effective date of this permit and the 400-hour threshold was triggered within 6 months of the permit's effective date, or

(C) Within 1 year after exceeding 400 hours of operation in a 12-month period if the last source test occurred greater than 4 years prior to the exceedance.

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the most stringent NO_x limit shown in Condition 41, the Permittee shall conduct a NO_x and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 41.

b. **Substituting Test Data.** The Permittee may use results of a source test completed under Condition 42.1.a performed on only one of a group of turbines to satisfy the requirements of the condition for the other turbines in the group if

(i) the Permittee demonstrates that test results are less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 41, and are projected under Condition 42.1.c to be less than or equal to 90 percent of the most stringent limit at maximum load;

(ii) for any source test conducted after the effective date of this permit, the Permittee identifies in a source test plan under Condition 82

(A) the turbine to be tested;

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

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

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

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

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

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

(iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the most stringent NO_x limit shown in Condition 41.

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

(i) Conduct all tests under Condition 42.1 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department or by EPA if the circumstances of the Department or EPA approval are still valid at the time. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

(ii) Demonstrate in the source test plan whether the test is scheduled when maximum NO_x emissions are expected.

(iii) If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data,

(A) for each such turbine the Permittee shall provide to the Department as an attachment to the source test report

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

(2) a demonstration based on the additional test information that projects the test results from Condition 42.1 to predict the highest load at which emissions will comply with the limit in Condition 41;

(B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit in Condition 41;

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

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

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

(3) the Permittee must retest during a period of greater expected demand on the turbine; and

(D) the Permittee may revise a load limit by submitting results of a more recent Method 20, or Method 7E and either Method 3 or 3A, test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 42.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 42.1.c(iii)(C); and

(iv) In order to perform a source test required under Condition 42.1, the Permittee may operate a turbine at a higher load than that prescribed by Condition 42.1.c(iii).

(v) For the purposes of Conditions 42.1 through 42.3, maximum load means the hourly average load that is the smallest of

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

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

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

42.2. **Recordkeeping.** The Permittee shall keep records as follows:

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]

a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 42.1.c(iii) does not show compliance with the NO_x limit in Condition 41 at maximum load.

(i) The Permittee shall keep records of

(A) load; or

(B) as approved by the Department, surrogate measurements for load and the method for calculating load from those measurements.

(ii) Records in Condition 42.2.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 42.1.c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 42.1.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how load or load surrogates will be measured, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Condition 41, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

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

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

a. In each operating report under Condition 91 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 42.1.c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 42.2.a during the period covered by the operating report.

b. In each operating report under Condition 91 for each turbine for which Condition 42.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify

(i) the turbine;

(ii) the highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and

(iii) any turbine that operated for 400 or more hours.

c. The Permittee shall report under Condition 90 if

(i) a test result exceeds the emission standard;

(ii) Method 20, or Method 7E and either Method 3 or 3A, testing is required under Condition 42.1.a(i) or 42.1.a(ii) but not performed; or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 42.1.c(iii)(B) and 42.1.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

[18 AAC 50.220(a) - (c) & 50.040(a)(1)]
[40 C.F.R. 60.8(b), Subpart A]

43. NSPS Subpart GG SO_2 Standard. For EU IDs 500 and 501, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 wt% S_{fuel} (8,000 ppmw).

[18 AAC 50.040(a)(2)(V), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.333(b), Subpart GG]

44. NSPS Subpart GG SO_2 MR&R Requirements. The Permittee shall monitor, record, and report compliance with the applicable Subpart GG SO_2 standard in Condition 43, as follows:

44.1. **Monitoring.** The Permittee shall monitor compliance with the Subpart GG SO_2 standard in Condition 43, as follows:

[18 AAC 50.040(a)(2)(V), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]

a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 44.1.b. Determine the sulfur content of the fuel using total sulfur methods described in Condition 44.1.d(ii)(B). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4,000 ppmw), the Permittee may use ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference – see 40 C.F.R. 60.17), which measure the major sulfur compounds.

[40 C.F.R. 60.334(h)(1), Subpart GG]

b. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u),[18] regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee shall use the following source of information to make the required demonstration: [19]

[40 C.F.R. 60.334(h)(3), Subpart GG]

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

[40 C.F.R. 60.334(h)(3)(i), Subpart GG]

(ii) Representative fuel sampling data, which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in 40 C.F.R. 75, Appendix D, Section 2.3.1.4 or 2.3.2.4 is required.

[40 C.F.R. 60.334(h)(3)(ii), Subpart GG]

c. For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule[20].

[40 C.F.R. 60.334(h)(4), Subpart GG]

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

[40 C.F.R. 60.334(i), Subpart GG]

(i) *Gaseous fuel.* For owners and operators that elect not to demonstrate sulfur content using options in Condition 44.1.b, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

[40 C.F.R. 60.334(i)(2), Subpart GG]

[18] As defined in 40 C.F.R. 60.331(u), *Natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

[19] Periodic fuel sulfur monitoring under Condition 44.1.a and reporting under Conditions 44.4.a do not apply to Subpart GG turbines that have demonstrated that natural gas fuel meets the definition of 40 C.F.R. 60.331(u) as set out by Condition 44.1.b.

[20] Alternative Monitoring Plan approved by the EPA on November 12, 1998.

(ii) *Custom schedules.* Notwithstanding the requirements of Condition 44.1.d(i),

(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 C.F.R. 60.334(i)(3)(i) and (i)(3)(ii), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 43. The two custom sulfur monitoring schedules set forth in 40 C.F.R. 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.

[40 C.F.R. 60.334(i)(3), Subpart GG]

(B) Alternatively, as provided under Condition 44.1.c, the Permittee may continue to use the Alternative Monitoring Plan approved by EPA on 11/12/98 (AMP). The AMP requires quarterly monitoring for six calendar quarters, then reduces monitoring to semiannually if H_2S results are below 80 ppm.

[Alternative Monitoring Plan, 11/12/98]

44.2. **Test Methods and Procedures.** If the owner or operator is required under Condition 44.1.d to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. The owner or operator shall analyze the samples for the total sulfur content of the fuel as follows:

[18 AAC 50.040(a)(2)(V), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.335(b)(10), Subpart GG]

a. For gaseous fuels, use ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see 40 C.F.R. 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

[40 C.F.R. 60.335(b)(10)(ii), Subpart GG]

b. The fuel analyses may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[40 C.F.R. 60.335(b)(11), Subpart GG]

44.3. **Recordkeeping.** The Permittee shall keep records as required by Conditions 44.1 and 86, and the AMP as follows:

a. Maintain records of all sulfur monitoring data.

b. Maintain a record documenting the source of fuel gas. A substantial change in fuel gas quality shall be considered a change in fuel supply.

c. Maintain records of all turbine operation on all fuels other than fuel gas.

d. Maintain records on-site for a period of five years from the generation of such record.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii) & 71.6(c)(6)]
[Alternative Monitoring Plan, 11/12/98]

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

[18 AAC 50.040(a)(2)(V), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

a. For each affected unit monitored periodically to determine the fuel sulfur content under Condition 44.1.a, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 31, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under Condition 31, periods of excess emissions and monitor downtime that shall be reported are defined as follows:

[40 C.F.R. 60.334(j), Subpart GG]

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

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

[40 C.F.R. 60.334(j)(2)(i) & (iii), Subpart GG]

b. If electing to comply with Condition 44.1.b, the Permittee shall include with the operating report under Condition 91 a certified statement indicating that the fuel gas combusted at the stationary source meets the definition of natural gas in 40 C.F.R. 60.331(u), pursuant to 40 C.F.R. 60.334(h)(3).

c. As required by the AMP, submit to EPA within 60 days of any changes in supplier or source of fuel, or use of any fuel other than fuel gas.

d. As required by the AMP, annually report the results of all sulfur monitoring to EPA. Provide a copy of the report to the Department by February 1 following the end of each calendar year.

[Alternative Monitoring Plan, 11/12/98]
[18 AAC 50.040(j); 18 AAC 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

NSPS Subpart IIII[21] – Compression Ignition Internal Combustion Engines (CI ICE), EU IDs 420a and 421a

45. NSPS Subpart IIII Applicability and General Compliance Requirements. For EU ID 420a and 421a listed in Table A, the Permittee shall comply with the applicable requirements for non-emergency stationary CI ICE located in remote areas of Alaska[22] whose construction[23] commence after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006.

45.1. For EU IDs 420a and 421a, the Permittee shall comply with the applicable provisions of 40 C.F.R. 60 Subpart A as specified in Table 8 to Subpart IIII, and applicable provisions of Subpart IIII as specified in Conditions 46 through 50.

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

46. NSPS Subpart IIII GAPCP. Except as permitted under Condition 49.1, the Permittee shall operate and maintain EU IDs 420a and 421a and control device according to the manufacturer's written instructions, may change only those emission-related settings that are permitted by the manufacturer, and shall meet the requirements of Condition 48 and the applicable requirements of 40 C.F.R. 1068. In addition, the Permittee shall operate and maintain EU IDs 420a and 421a in a manner that achieves the emissions standards as required in Condition 48 over the entire life of the engine.

[40 C.F.R. 60.4206, 60.4209, and 60.4211(a), Subpart IIII]

47. NSPS Subpart IIII Fuel Requirements. For EU IDs 420a and 421a, the Permittee is exempt from the fuel requirements of 40 C.F.R. 60.4207, and may use fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel.

[18 AAC 50.040(a)(2)(OO) & (j); & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4216(d) & (f), Subpart IIII]

47.1. The sulfur content of the used lubricating oil must be less than 200 ppm.

47.2. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 C.F.R. 279.11.

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[21] The provisions of NSPS Subpart IIII listed in Conditions 45 through 51 are current as amended through August 10, 2022. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[22] *Remote areas of Alaska,* as defined in 40 C.F.R. 60.4219.

[23] For the purposes of NSPS Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator as defined in 40 C.F.R. 60.4200(a).

48. NSPS Subpart IIII Emission Standards. The Permittee shall comply with the following emission standards:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

48.1. Exhaust emissions from EU IDs 420a and 421a (stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska) shall not exceed the following applicable exhaust emission standards (Tier 2 emission factors) for new nonroad CI engines in 40 C.F.R. 1039(b) for all pollutants, for the same displacement and maximum engine power, as follows:

a. 6.4 g/kW-hr (or 4.8 g/Hp-hr) for NMHC + NO_x;

b. 3.5 g/kW-hr (or 2.6 g/Hp-hr) for CO; and

c. 0.20 g/kW-hr (or 0.15 g/Hp-hr) for PM.

[40 C.F.R. 60.4216(c), 60.4205(b) & 60.4202(a)(2), Subpart IIII]
[40 C.F.R. Appendix I to Part 1039(b)]

48.2. Exhaust opacity from each of EU IDs 420a and 421a must not exceed

a. 20 percent during the acceleration mode;

b. 15 percent during the lugging mode; and

c. 50 percent during the peaks in either the acceleration or lugging modes.

[40 C.F.R. 60.4216(c), 60.4205(b) & 60.4202(a)(2), Subpart IIII]
[40 C.F.R. 1039.105(b), Subpart B]

49. NSPS Subpart IIII Monitoring and Recordkeeping. The Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) & (ii) & (c)(6)]

49.1. For EU IDs 420a and 421a, demonstrate compliance with the emission standards by purchasing an engine certified to the applicable emission standards in Conditions 48.1 and 48.2. The engines must be installed and configured according to the manufacturer's specifications, except as permitted in Condition 49.2.

[40 C.F.R. 60.4211(c), Subpart IIII]

49.2. If the Permittee does not install, configure, operate, and maintain EU IDs 420a and 421a and control devices according to the manufacturer's emission-related written instructions as required in Condition 46, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

a. 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.

b. In addition, conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

c. Conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first thereafter, to demonstrate compliance with the applicable emission standards.

[40 C.F.R. 60.4211(g)(3), Subpart IIII]

d. Conduct performance tests and meet the not-to-exceed (NTE) standards in accordance with the applicable requirements indicated in 40 C.F.R. 60.4212(a) and (c).

[40 C.F.R. 60.4204(d), 60.4205(e) and 60.4212(a) & (c), Subpart IIII]

49.3. If using fuels mixed with used lubricating oil as specified in Condition 47, comply with the following:

a. Determine that the used oil to be burned for energy recovery meets the fuel specifications of 40 C.F.R. 279.11 and the sulfur content limit in Condition 47.1 by performing approved analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

b. Keep records of the following:

(i) copies of analyses of the used oil (or other information used to make the compliance determination in Condition 49.3.a) for three years;

(ii) the amount of the used lubricating oil to be blended;

(iii) the amount of other distillate fuel oil to be mixed with the used lubricating oil; and

(iv) the ratio of the lubricating oil to the total fuel blend.

[40 C.F.R. 71.6(c)(6)]
[40 C.F.R. 279.72(a) & (b)]

50. NSPS Subpart IIII Reporting. The Permittee shall report as follows:

50.1. If using fuels mixed with used lubricating oil, include with the operating report required under Condition 91 a copy of the records required in Condition 49.3.b for the period covered by the report.

50.2. Report in accordance with Condition 90 if any of the requirements in Conditions 45 through 51 was not met.

[18 AAC 50.040 (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

51. NSPS Subpart IIII Deadline for Importing or Installing Stationary CI ICE in Previous Model Years. The Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4200(a)(4), 60.4208(a) – (i), & 60.4216(e), Subpart IIII]

51.1. The Permittee shall not install stationary CI ICE units in previous (2007 – 2017) model years after the dates and as specified in 40 C.F.R. 60.4208(a) – (g).

[40 C.F.R. 60.4208(a) - (g), Subpart IIII]

51.2. In addition to the requirements specified in 40 C.F.R. 60.4201, 60.4202, 60.4204, and 60.4205, the Permittee shall not import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements and after the dates specified in 40 C.F.R. 60.4208(a) – (g).

[40 C.F.R. 60.4208(h), Subpart IIII]

51.3. The requirements of Condition 51 do not apply to stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[40 C.F.R. 60.4208(i), Subpart IIII]

NSPS Subpart OOOOa[24] – Crude Oil and Natural Gas Facilities

52. NSPS Subpart OOOOa Applicability. The Permittee shall comply with any applicable requirement for crude oil and natural gas facilities whose construction, modification, or reconstruction commenced after September 18, 2015 and on or before December 6, 2022.[25]

52.1. The Permittee must be in compliance with the standards of NSPS Subpart OOOOa no later than August 2, 2016 or upon startup, whichever is later.

52.2. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 C.F.R. 60.8(c) do not apply to NSPS Subpart OOOOa.

[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.5370a(a) & (b), Subpart OOOOa]

[24] The provisions of NSPS Subpart OOOOa listed in Conditions 52 through 55 are current as amended through May 10, 2024. Should EPA promulgate revisions to this subpart, the permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[25] The Permittee must follow this condition for the applicable affected facility until they modify or reconstruct the affected facility after December 6, 2022, and thus become subject to subpart OOOOb.

52.3. Comply with the applicable provisions of Subpart A as specified in Table 3 to Subpart OOOOa.

[18 AAC 50.040((j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.5360a–60.5430a, Subpart OOOOa]

52.4. **Notification**. The Permittee shall comply with the following requirements for any affected facility specified in 40 C.F.R. 60.5365a that was constructed, modified, or reconstructed during the reporting period.

[40 C.F.R. 71.6(a)(3)]
[40 C.F.R. 60.5420a(a), Subpart OOOOa]

a. If you own or operate a well affected facility, you must submit a notification to the Administrator no later than 2 days prior to the commencement of each well completion operation listing the anticipated date of the well completion operation. The notification shall include contact information for the owner or operator; the United States Well Number; the latitude and longitude coordinates for each well in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983; and the planned date of the beginning of flowback. You may submit the notification in writing or in electronic format.

b. If you are subject to state regulations that require advance notification of well completions and you have met those notification requirements, then you are considered to have met the advance notification requirements of Condition 52.4.a.

[40 C.F.R. 60.5375a(e) & 60.5420a(a)(2)(i) & (ii), Subpart OOOOa]

53. NSPS Subpart OOOOa Emission Standards. The Permittee shall comply with the applicable emission standards for all affected facilities, as follows:

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.5375a, 60.5397a, Subpart OOOOa]

53.1. **Wells**. For each well affected facility the Permittee shall:

a. Except as provided in Condition 53.1.h, reduce GHG (methane) and VOC emissions for each stage of a well completion[26] with hydraulic fracturing on or after November 30, 2016 in accordance with the following:

(i) During the initial flowback stage, route the flowback into one or more completion vessels or storage vessels and commence operation of a separator unless it is technically infeasible for a separator to function. Any gas present in the flowback stage is not subject to control.

[26] *Well completion* means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

(ii) During the separation flowback stage, route all recovered liquids from the separator to one or more well completion vessels or storage vessels, re-inject the recovered liquids into the well or another well, or route the recovered liquids to a collection system. Route the recovered gas from the separator into a gas flow line or collection system, re-inject the recovered gas into the well or another well, use the recovered gas as an onsite fuel source, or use the recovered gas for another useful purpose that a purchased fuel or raw material would serve. If it is technically infeasible to route the recovered gas as required, follow the requirements in 53.1.a(iv). If, at any time during the separation flowback stage, it is technically infeasible for a separator to function, you must comply with Condition 53.1.a(i).

(iii) You must have a separator onsite during the entirety of the flowback period, except as provided in Conditions 53.1.a(iii)(A) through 53.1.a(iii)(C).

(A) A well that is not hydraulically fractured or refractured with liquids, or that does not generate condensate, intermediate hydrocarbon liquids, or produced water such that there is no liquid collection system at the well site is not required to have a separator onsite.

(B) If conditions allow for liquid collection, then the operator must immediately stop the well completion operation, install a separator, and restart the well completion operation in accordance with Condition 53.1.a.

(C) The owner or operator of a well that meets the criteria of Conditions 53.1.a(iii)(A) or 53.1.a(iii)(B) must maintain and report the records specified in Condition 54.2.

(iv) If it is technically infeasible to route the recovered gas as required in Condition 53.1.a(ii), then capture and direct recovered gas to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact tundra, permafrost, or waterways. Completion combustion devices must be equipped with a reliable continuous pilot flame.

b. You have a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery.

c. Maintain a log for each well completion operation at each well affected facility. The log must be completed on a daily basis for the duration of the well completion operation and must contain the records specified in Condition 54.2.

d. Demonstrate initial compliance with the standards that apply to well affected facilities as required by 40 C.F.R. 60.5410a(a).

e. Demonstrate continuous compliance with the standards that apply to well affected facilities as required by 40 C.F.R. 60.5415a(a).

f. Perform the required notification, recordkeeping, and reporting as required by Conditions 52.4, 55.2.a, 55.2.b, and 40 C.F.R. 60.5420a(c)(1).

g. For each well affected facility specified in Condition 53.1.g(i), you must comply with the requirements of Conditions 53.1.g(ii) and 53.1.g(iii).

(i) Each well completion operation with hydraulic fracturing at a wildcat or delineation well.

(ii) You must comply with either Condition 53.1.g(ii)(A) or Condition 53.1.g(ii)(B), unless you meet the requirements in Condition 53.1.h. You must also comply with Condition 53.1.c.

(A) Route all flowback to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact tundra, permafrost or waterways. Completion combustion devices must be equipped with a reliable continuous pilot flame.

(B) Route all flowback into one or more well completion vessels and commence operation of a separator unless it is technically infeasible for a separator to function. Any gas present in the flowback before the separator can function is not subject to control under this section. Capture and direct recovered gas to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact tundra, permafrost or waterways. Completion combustion devices must be equipped with a reliable continuous pilot flame.

(iii) Submit the notification as specified in Condition 52.4, submit annual reports as specified in Conditions 55.2.a and 55.2.b, and maintain records specified in Condition 54.2 for each wildcat and delineation well.

h. For each well affected facility with less than 300 scf of gas per stock tank barrel of oil produced, you must maintain records specified in Condition 54.2.c and submit reports specified in Condition 55.1.

[40 C.F.R. 60.5375a(a) through (g), 60.5420a(b)(1) & (c)(1), Subpart OOOOa]

53.2. **Fugitive Emissions**. For each collection of fugitive emissions components at a well site,[27] the Permittee shall reduce GHG (methane) and VOC emissions as follows:

a. You must monitor all fugitive emissions components, in accordance with Conditions 53.2.b and 53.2.c. You must repair all sources of fugitive emissions[28] in accordance with Conditions 53.2.d through 53.2.f. You must keep records in accordance with Condition 54.3 and report in accordance with Condition 55.2.c.

b. You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at well sites within each company-defined area in accordance with Conditions 54.3.a and 54.3.b.

c. Each monitoring survey shall observe each fugitive emissions component[29] for fugitive emissions.

(i) You must conduct an initial monitoring survey within 60 days of the startup of production,[30] for each collection of fugitive emissions components at a new well site or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a well site, the initial monitoring survey must be conducted within 6 months of the first day of production for each collection of fugitive emission components after the modification or by June 3, 2017, whichever is later.

(ii) Except as provided in Condition 53.2.c(iii), a monitoring survey of each collection of fugitive emissions components at a well site within a company-defined area located on the Alaskan North Slope must be conducted at least annually after the initial survey. Consecutive annual monitoring surveys must be conducted at least 9 months apart and no more than 13 months apart.

(iii) Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of Conditions 53.2.c(iii)(A) through 53.2.c(iii)(D).

[27] A well site that only contains one or more wellheads is not an affected facility under NSPS Subpart OOOOa. The affected facility status of a separate tank battery surface site has no effect on the affected facility status of a well site that only contains one or more wellheads.

[28] *Fugitive emissions* means any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

[29] *Fugitive emissions component* means any component that has the potential to emit fugitive emissions of methane or VOC at a well site or compressor station, including but not limited to valves, connectors, pressure relief devices, open-ended lines, flanges, covers, and closed vent systems not subject to 40 C.F.R. 60.5411a, thief hatches or other openings on a controlled storage vessel not subject to 40 C.F.R. 60.5395a, compressors, instruments, and meters. Devices that vent as part of normal operations, such as natural gas-driven pneumatic controllers or natural gas-driven pumps, are not fugitive emissions components, insofar as the natural gas discharged from the device's vent is not considered a fugitive emission. Emissions originating from other than the vent, such as the thief hatch on a controlled storage vessel, would be considered fugitive emissions.

[30] *Startup of production* means the beginning of initial flow following the end of flowback when there is continuous recovery of salable quality gas and separation and recovery of any crude oil, condensate, or produced water.

(A) A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by Conditions 54.3.a, 54.3.b, and 54.3.c.

(B) The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

(C) The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

(D) The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.

[40 C.F.R. 60.5397a(g)(3)(i) through (iv), Subpart OOOOa]

(iv) Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the specifications of Conditions 53.2.c(iv)(A) through 53.2.c(iv)(D).

(A) A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by Conditions 54.3.a, 54.3.b, and 54.3.c.

(B) The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

(C) The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

(D) The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

[40 C.F.R. 5397a(g)(4)(i) through (iv), Subpart OOOOa]

d. Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.

e. If the repair or replacement is technically infeasible, would require a vent blowdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next well shutdown, well shut-in, after an unscheduled, planned or emergency vent blowdown or within 2 years of detecting the fugitive emissions, whichever is earlier.

f. Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(i) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.

(ii) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that it was taken and must clearly identify the component by location within the site.

(iii) Operators that use Method 21 to resurvey the repaired fugitive emissions components are subject to the resurvey provisions specified in Conditions 53.2.f(iii)(A) and 53.2.f(iii)(B).

(A) A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.

(B) Operators must use the Method 21 monitoring requirements specified in Condition 54.3.a(viii)(B) or the alternative screening procedures specified in section 8.3.3 of Method 21.

(iv) Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the resurvey provisions specified in Conditions 53.2.f(iv)(A) and 53.2.f(iv)(B).

(A) A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

(B) Operators must use the optical gas imaging monitoring requirements specified in Condition 54.3.a(vii).

[40 C.F.R. 60.5397a(a), (b), & (e)–(h), Subpart OOOOa]

54. NSPS Subpart OOOOa Recordkeeping. The Permittee shall comply with the following:

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)]
[40 C.F.R. 60.5420a(c), Subpart OOOOa]

54.1. Maintain the records specified in 40 C.F.R. 60.7(f) and in Conditions 54.2 and 54.3, as applicable. All records required by NSPS Subpart OOOOa must be maintained onsite or at the nearest local field office for at least 5 years. Any records that are submitted electronically via the EPA's CDX may be maintained in electronic format.

54.2. **Wells**. For each well affected facility, maintain records as specified in Conditions 54.2.a through 54.2.c, as applicable. For each well affected facility for which you make a claim that the well is not subject to the requirements for well completions pursuant to Condition 53.1.c, you must maintain the record in Condition 54.2.c only.

a. For each well affected facility for which you make a claim that it meets the criteria of Condition 53.1.a(iii)(A) you must maintain the records specified in 40 C.F.R. 60.5420a(c)(1)(iii)(C).

b. For each well affected facility required to comply with Conditions 53.1.a, as an alternative to retaining the records required in Conditions 54.2.a, you must retain records of one or more digital photographs with the date the photograph was taken and the latitude and longitude of the well site imbedded within or stored with the digital file showing the equipment for storing or re-injecting recovered liquid, equipment for routing recovered gas to the gas flow line and the completion combustion device (if applicable) connected to and operating at each well completion operation that occurred during the initial compliance period. As an alternative to imbedded latitude and longitude within the digital photograph, the digital photograph may consist of a photograph of the equipment connected and operating at each well completion operation with a photograph of a separately operating GPS device within the same digital picture, provided the latitude and longitude output of the GPS unit can be clearly read in the digital photograph.

c. For each well affected facility for which you claim that the well is not subject to the well completion standards according to Condition 53.1.c you must maintain:

(i) A record of the analysis that was performed in order the make that claim, including but not limited to, gas/oil ratio values for established leases and data from wells in the same basin and field;

(ii) The location of the well; the United States Well Number;

(iii) A record of the claim signed by the certifying official. The claim must include a certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[40 C.F.R. 60.5420a(c)(1), Subpart OOOOa]

54.3. **Fugitive Emissions**. For each collection of fugitive emissions components at a well site, maintain records as specified in Conditions 54.3.a through 54.3.c, as applicable.

a. Fugitive emissions monitoring plans must include the following elements, at a minimum:

(i) Frequency for conducting surveys.

(ii) Technique for determining fugitive emissions (i.e., Method 21 at 40 C.F.R. part 60, appendix A-7, or optical gas imaging).

(iii) Manufacturer and model number of fugitive emissions detection equipment to be used.

(iv) Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. Your repair schedule must meet the requirements of Conditions 53.2.d through 53.2.f, at a minimum.

(v) Procedures and timeframes for verifying fugitive emission component repairs.

(vi) Records that will be kept and the length of time records will be kept.

(vii) If you are using optical gas imaging, your plan must also include the following:

(A) An initial verification, which may be performed by the facility, by the manufacturer, or by a third party, that your optical gas imaging equipment meets the following specifications:

(1) capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

(2) capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of ≤60g/hr from a quarter inch diameter orifice.

(B) Procedure for a daily verification check.

(C) Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

(D) Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

(E) Procedures for conducting surveys, including the following:

(1) How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

(2) How the operator will deal with adverse monitoring conditions, such as wind.

(3) How the operator will deal with interferences (e.g., steam).

(F) Training and experience needed prior to performing surveys.

(G) Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

(viii) If you are using Method 21 of appendix A-7 of this part, your plan must also include the following:

(A) Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 C.F.R. part 60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If you wish to use an analyzer other than a FID-based instrument, you must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to your compound of interest).

(B) Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 C.F.R. part 60, appendix A-7, including Section 8.3.1.

[40 C.F.R. 60.5397a(c), Subpart OOOOa]

b. Each fugitive emissions monitoring plan must include the following elements at a minimum, as applicable:

(i) A sitemap.

(ii) A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.

(iii) If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).

(iv) Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with 53.2.c(iii), and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with 53.2.c(iv).

[40 C.F.R. 60.5397a(d), Subpart OOOOa]

c. For each fugitive emissions monitoring survey, maintain the following:

(i) Date of the survey.

(ii) Beginning and end time of the survey.

(iii) Name of operator(s) performing survey. You must note the training and experience of the operator.

(iv) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

(v) Monitoring instrument used.

(vi) When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph was taken and the latitude and longitude of the collection of fugitive emissions components at a well site imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.

(vii) Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.

(viii) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

(ix) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

(x) Documentation of each fugitive emission, including the following:

(A) Location.

(B) Number and type of components for which fugitive emissions were detected.

(C) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.

(D) Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.

(E) Number and type of fugitive emissions components that were not repaired as required in Condition 53.2.d.

(F) Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition 53.2.f(ii).

(G) If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition 53.2.f(ii). The digital photograph or video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this condition can also be used to meet the requirements under Condition 54.3.c(vi), as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.

(H) Repair methods applied in each attempt to repair the fugitive emissions components.

(I) Number and type of fugitive emissions components placed on delay of repair and explanation for each delay of repair.

(J) The date of successful repair of the fugitive emissions component.

(K) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

[40 C.F.R. 60.5420a(c)(15), Subpart OOOOa]

55. NSPS Subpart OOOOa Reporting. The Permittee shall comply with the following:

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)]
[40 C.F.R. 60.5420a(b) & 60.5397a, Subpart OOOOa]

55.1. Submit an initial annual report no later than 90 days after the end of the initial compliance period. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for your affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than one full year. Subsequent annual reports are due no later than the same date each year as the initial annual report. If you own more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the required information. Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included.

[40 C.F.R. 60.5420a(b), Subpart OOOOa]

a. You may arrange with the Administrator a common schedule on which reports required by Condition 55 may be submitted as long as the schedule does not extend the reporting period. On July 1, 2024, the Administrator approved the following alternative timeline: annual reporting period of April 1st of the preceding year through March 31st of the current year, with the report due June 29th of the current year.

[40 C.F.R. 60.19(c) & (f)]

55.2. Submit reports to the EPA via the Compliance and Enforcement Data Reporting Interface (CEDRI). You must use the appropriate electronic report template on the CEDRI website for NSPS Subpart OOOOa (https://www.epa.gov/electronic-reporting-air-emissions/cedri/). Reports shall contain the information specified in Conditions 55.2.a through 55.2.c, as applicable.

[40 C.F.R. 60.5420a(b)(11), Subpart OOOOa]

a. The following general information:

(i) The company name, facility site name associated with the affected facility, US Well ID or US Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

(ii) An identification of each affected facility being included in the annual report.

(iii) Beginning and ending dates of the reporting period.

(iv) A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[40 C.F.R. 60.5420a(b)(1), Subpart OOOOa]

b. For each well affected facility, include:

(i) Records of each well completion operation conducted during the reporting period, as specified in Conditions 54.2.a through 54.2.c, if applicable. In lieu of submitting the records specified in Conditions 54.2.athrough 54.2.c, the owner or operator may submit a list of the well completions with hydraulic fracturing completed during the reporting period and the records required by Condition 54.2.b for each well completion.

[40 C.F.R. 60.5420a(b)(2), Subpart OOOOa]

c. For the collection of fugitive emissions components at each well site within the company defined area, the records of each monitoring survey including the following:

(i) Date of the survey.

(ii) Beginning and end time of the survey.

(iii) Name of operator(s) performing survey. If the survey is performed by optical gas imaging, you must note the training and experience of the operator.

(iv) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

(v) Monitoring instrument used.

(vi) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

(vii) Number and type of components for which fugitive emissions were detected.

(viii) Number and type of fugitive emissions components that were not repaired as required in Condition 53.2.d.

(ix) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.

(x) The date of successful repair of the fugitive emissions component.

(xi) Number and type of fugitive emissions components placed on delay of repair and explanation for each delay of repair.

(xii) Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

[40 C.F.R. 60.5420a(b)(7), Subpart OOOOa]

d. The collection of fugitive emissions components at a well site are not subject to the requirements of 40 C.F.R. 60.5420a(b)(1) from June 2, 2017, until August 31, 2017.

[40 C.F.R. 60.5420a(b)(13), Subpart OOOOa]

55.3. Submit performance test results within 60 days after the date of completing each test, except testing conducted by the manufacturer as specified in 40 C.F.R. 60.5413a(d), you must submit the results of the performance test following the procedure specified in either 40 C.F.R. 60.5420a(b)(9)(i) or (ii).

55.4. For combustion control devices tested by the manufacturer, an electronic copy of the performance test results required by 40 C.F.R. 60.5413a(d) shall be submitted via email to Oil_and_Gas_PT@EPA.GOV unless the test results for that model of combustion control device are posted at the following Web site: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry.

[40 C.F.R. 60.5420a(b)(9), & (10), Subpart OOOOa]

40 C.F.R. Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP Subpart A – General Provisions

56. NESHAP Subpart A Applicability. The Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ for EU IDs 420a and 421a listed in Table A.

[18 AAC 50.040(c)(1), (23) & (39), 50.040(j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]
[40 C.F.R. 63.1-63.15, Subpart A]
[40 C.F.R. 63.6665 & Table 8, Subpart ZZZZ]

NESHAP Subpart ZZZZ[31] – Stationary RICE, EU IDs 420a and 421a

57. NESHAP Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for existing[32] and new[33] (EU ID 420a and 421a) stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

57.1. For EU IDs 420a and 421a, new stationary RICE units, the Permittee shall meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII in Conditions 45 through 51. No further requirements apply for such engines under 40 C.F.R. 63.

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
40 C.F.R. 71.6((a)(1)
[40 C.F.R. 63.6585(c), 63.6590(a)(1)(iii), (a)(2)(iii) & (c)(1), and 63.6605(a), Subpart ZZZZ]

[31] The provisions of NESHAP Subpart ZZZZ listed in Condition 57 are current as amended through August 10, 2022. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

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

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

40 C.F.R. Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart A – General Provisions & Subpart M – Asbestos

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

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

40 C.F.R. Part 82 Protection of Stratospheric Ozone

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

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

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

[18 AAC 50.040(d) & 50.326(j)]
[40 C.F.R. 82.174(b) through (d), Subpart G]

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

[18 AAC 50.040(d) & 50.326(j)]
[40 C.F.R. 82.270(b) through (f), Subpart H]

NESHAP Applicability Determination Requirements

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

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

62.2. If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the owner or operator shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 C.F.R. 63.6(c).

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

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

Section 5. General Conditions

Standard Terms and Conditions

63. 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) and 50.345(a) & (e)]

64. 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) and 50.345(a) & (f)]

65. The permit does not convey any property rights of any sort, nor any exclusive privilege.

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

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

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

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

67.1. potential to emit of 978.70 TPY; or

67.2. 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]

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

68.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 67.2. 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/.

68.2. 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.

68.3. 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.

68.4. 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 67.1.

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

69. Good Air Pollution Control Practice (GAPCP). The Permittee shall do the following for EU IDs 422, 502, 505, and 507:

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

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

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

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

70. 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)]

71. 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.

71.1. 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 71.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

71.2. The Permittee shall report according to Condition 73.3.

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

72. 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)]

73. 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), and 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

73.1. **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 73.

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 73; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 73.

73.2. **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 73; and

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

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

a. With each stationary source operating report under Condition 91, 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 90.

74. 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[34] listed in Conditions 24, 41, 43, 48, and 59 (refrigerants), the Permittee shall

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

74.2. report in accordance with Condition 90.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken.

[18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 C.F.R. 71.6(c)(6)]

Open Burning Requirements

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

[34] 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 C.F.R. 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.

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

75.2. Include this condition in the annual certification required under Condition 92.

[18 AAC 50.065, 50.040(j), and 50.326(j)]
[40 C.F.R. 71.6(a)(3)]

Section 6. General Source Testing and Monitoring Requirements

76. 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) and 50.345(a) & (k)]

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

[18 AAC 50.220(b)]

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

77.2. 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.

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

78.1. 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 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) and 50.040(a)]
[40 C.F.R. 60]

78.2. 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 C.F.R. 61.

[18 AAC 50.040(b) and 50.220(c)(1)(B)]
[40 C.F.R. 61]

78.3. 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 C.F.R. 63.

[18 AAC 50.040(c) and 50.220(c)(1)(C)]
[40 C.F.R. 63]

78.4. 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 and 50.220(c)(1)(D)]

78.5. 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 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(3) and 50.220(c)(1)(E)]
[40 C.F.R. 60, Appendix A]

78.6. Source testing for emissions of PM_{10} and $PM_{2.5}$ must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]
[40 C.F.R. 51, Appendix M]

78.7. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(32) & 50.220(c)(2)]
[40 C.F.R. 63, Appendix A, Method 301]

79. 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) and 50.990(102)]

80. Test Exemption. The Permittee is not required to comply with Conditions 82, 83, and 84 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.2).

[18 AAC 50.345(a)]

81. 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)]

82. Test Plans. Except as provided in Condition 80, 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 76 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)]

83. Test Notification. Except as provided in Condition 80, 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)]

84. Test Reports. Except as provided in Condition 80, 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 87. 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)]

85. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 7 and 28.2, 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

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

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

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

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

b. the date(s) analyses were performed;

c. the company or entity that performed the analyses;

d. the analytical techniques or methods used;

e. the results of such analyses; and,

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

[18 AAC 50.040(a)(1) & (j)(4) and 50.326(j)]
[40 C.F.R. 60.7(f), Subpart A, 40 C.F.R. 71.6(a)(3)(ii)(A) & (B)]

Reporting Requirements

87. Certification. The Permittee shall certify any permit application, report, affirmation, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *"Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete."* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

87.1. 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)]

88. 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.

88.1. 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)]

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

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]
[40 C.F.R. 71.5(a)(2) & 71.6(a)(3)]

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

90.1. **Excess Emissions Reporting.** Except as provided in Condition 73, 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 90.1.d.

d. Report all other excess emissions not described in Conditions 90.1.a, 90.1.b, and 90.1.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 91 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)]

90.2. **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 5.3.b and 10.3.b).

b. Report all other permit deviations within 30 days after the end of the month during which the deviation occurred or as part of the next routine operating report in Condition 91 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)]

90.3. **Reporting Instructions.** When reporting either excess emissions or permit deviations, the Permittee shall report using the Department's online form for all such submittals, beginning no later than September 7, 2023. The form 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. Alternatively, upon written Department approval, the Permittee may submit 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), and 50.270(a), (b), & (c)]

91. Operating Reports. During the life of this permit[35], the Permittee shall submit to the Department an operating report in accordance with Conditions 87 and 88 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.

91.1. 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.

91.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 91.1, the Permittee shall identify

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

b. the equipment involved;

c. the permit condition affected;

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

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

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

91.3. when excess emissions or permit deviation reports have already been reported under Condition 90 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.

91.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 3.2.e, 8.2, and 42.1.a 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.

91.5. **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)(4)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

92. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 88.

92.1. 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.

92.2. **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.

92.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA Region 10, ATTN: Air Toxics and Enforcement Section, Mail Stop: 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 C.F.R. 71.6(c)(5)]

93. 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, NO_x, PM_{10}, $PM_{2.5}$, SO_2, VOC, and lead (Pb) and lead compounds, as follows:

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

a. 250 TPY of NH_3, PM_{10}, $PM_{2.5}$ or VOC; or

b. 2,500 TPY of CO, NO_x, or SO_2.

93.2. **Triennial inventory.** Every third year by April 30, if the stationary source's potential to emit does not meet any of the emission thresholds in Condition 93.1.

93.3. For reporting under Condition 93.2, the Permittee shall report the annual emissions and the required data elements under Condition 93.4 every third year for the previous calendar year as scheduled by the EPA.[36].

93.4. For each emissions unit and the stationary source, include in the report the required data elements[37] contained within the form included in the Emission Inventory Instructions available at the Department's AOS system on the Point Source Emission Inventory webpage at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory.

93.5. 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), 50.275, 50.326(j)(3), & 50.346(b)(8)]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1), and Appendix A to 40 C.F.R. 51 Subpart A]

[36] The calendar years for which reports are required are based on the triennial reporting schedule in 40 C.F.R. 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.).

[37] The required data elements to be reported to the EPA are outlined in 40 C.F.R. 51.15 and Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A.

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

94.1. **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 91 for the period covered by the report, a copy of any NSPS and NESHAP reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the online reports submitted during the reporting period.

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

[18 AAC 50.040(j)(4) and 50.326(j)(4)]
[40 C.F.R. 60.13, 63.10(d) & (f) and 40 C.F.R. 71.6(c)(6)]

Section 8. Permit Changes and Renewal

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

95.1. 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;

95.2. The information shall be submitted to the Part 70 Operating Permit Program, US EPA Region 10, Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188;

95.3. 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

95.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7), 50.326(a) & (j)(3), and 50.346(b)(7)]
[40 C.F.R. 71.10(d)(1)]

96. 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) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(8)]

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

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

97.2. 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;

97.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f);

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

[18 AAC 50.040(j)(4) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(12)]

98. Operational Flexibility. The Permittee may make CAA Section 502(b)(10)[38] changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions).

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

98.2. For each such change, the notification required by Condition 98.1 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.

98.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 98.

[18 AAC 50.040(j)(4) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(13)]

99. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[39] an application under 18 AAC 50.326 no sooner than **<18 months before the expiration date of this permit>** and no later than **<6 months before the expiration date of this permit>**. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 C.F.R. 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3) and 50.326(c) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) and 71.7(b) & (c)(1)(ii)]

[38] As defined in 40 C.F.R. 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.

[39] 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

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

100.1. included and specifically identified in the permit; or

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

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

101. 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

101.1. an enforcement action;

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

101.3. denial of an operating permit renewal application.

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

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

[18 AAC 50.040(j)(3) & (4) and 50.326(j)]
[40 C.F.R. 71.6(c)(3) and 71.5(c)(8)(iii)(A)]

103. 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) and 50.345(a) & (d)]

104. 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

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

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

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

104.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

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

105.2. 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 50.040(j)(4) and 50.326(j)]
[40 C.F.R. 71.6(f)(3)(i) & (ii)]

106. 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, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

[18 AAC 50.040(j)(4) and 50.326(j)]
[40 C.F.R. 71.6(f)(1)(ii)]

Table C - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
1	18 AAC 50.055(a)(1), (b)(1), and (c)	Nonroad internal combustion engines are not included in the definition of "fuel-burning equipment" or industrial processes, as defined in 18 AAC 50.990(39) and (49).
8, 503, 505	40 C.F.R. 60 Subpart D, Da, Db	Heat input capacities below threshold (100 – 250 MMBtu/hr)
8, 505	40 C.F.R. 60 Subpart Dc	EU 505, and any steam generating units used under EU ID 8, will have a maximum design heat input capacity less than 10 MMBtu/hr.
8, 503, 505	40 C.F.R. 63 Subpart DDDD	Stationary source is not a major source of HAPs.
8	40 C.F.R. 63. Subpart JJJJJJ	Any boilers used under EU ID 8 will meet the definition of temporary boiler under 40 C.F.R. 63.11237 and is not subject per 40 C.F.R. 63.11195(h).
505	40 C.F.R. 63. Subpart JJJJJJ	Gas-fired boilers are not subject to Subpart JJJJJJ.
420a, 421a	40 C.F.R. 60.11	Requirements are specified in 40 C.F.R. 60 Subpart IIII (Table 8 to Subpart IIII of Part 60).
420a, 421a	40 C.F.R. 60.4207	Located in area of Alaska not accessible by the Federal Aid Highway System (FAHS).
420a, 421a	40 C.F.R. 60.4209(b) & 60.4214(c)	Emission units are non-emergency CI ICE not equipped with a diesel particulate filter to comply with the emission standards in 40 C.F.R. 60.4204.

420a, 421a	40 C.F.R. 60.7, 60.8, 40 C.F.R. 60.4214(a)	Emission units are not greater than 3,000 Hp, or have a displacement greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 175 Hp and not certified.
420a, 421a	40 C.F.R. 60.4212 & 60.4213	The emission units meet the standards by being engines certified to the applicable emission standards.
420a, 421a	40 C.F.R. 63 Subpart ZZZZ	Emission units meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII and no further requirements apply (40 C.F.R. 63.6590(c)(1)).
422, 502	18 AAC 50.050(b)	The emission units have rated capacities less than 1,000 pounds per hour.
422, 502	40 C.F.R. 60. Subparts AAAA, CCCC, and EEEE	Incinerators have not commenced construction, modification, or reconstruction after August 30, 1999.
500, 501	40 C.F.R. 60.7(a)(1) & (3), 60.8(a)	Obsolete requirements – Initial requirements completed.
500, 501	40 C.F.R. 60.7(a)(4)	This requirement only applies to “existing facilities” as defined in 40 C.F.R. 60.2
500, 501	40 C.F.R. 60.332(a)(1)	Emission units are not electric utility stationary gas turbines as defined in Subpart GG.
500, 501	40 C.F.R. 60.334(a), (b), & (d), and 60.335(b)(4)	Emission units are not equipped with water injection to control emissions of NOx.
500, 501	40 C.F.R. 60.334(e) & (f)	Emission units commenced construction prior to July 8, 2004.
500, 501	40 C.F.R. 60.334(g)	Emission units are not subject to the continuous monitoring requirements of 60.334(a), (d), or (f).
500, 501	40 C.F.R. 334.(h)(2)	Allowance for fuel bound nitrogen not claimed.
500, 501	40 C.F.R. 60 Subpart KKKK	Emission units did not commence construction, modification, or reconstruction after February 18, 2005.
500, 501	40 C.F.R. 60 Subpart YYYY	Stationary source is not a major source of HAPs.
507	40 C.F.R. 60.18	This flare is not a control device used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61.
All Storage Tanks	40 C.F.R. 60 Subpart Kb	All storage tanks at the stationary source either meet 40 C.F.R. 60.110b(b), which exempts tanks that have a capacity greater than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15 kPa, or do not meet the applicability requirements in 40 C.F.R. 60.110b(a) and are not affected sources.

Source	40 C.F.R. 60 Subpart OOOO	Gas wells and other applicable equipment were constructed prior to August 23, 2011.
Source	40 C.F.R. Subpart OOOOa – Compressors	Stationary source has two reciprocating compressors that were installed prior to September 18, 2015. The units have not been modified or reconstructed.
Source	40 C.F.R. 60 Subpart OOOOa – Storage Vessels	Stationary source does not have any applicable storage tanks that have been installed, modified, or reconstructed after September 18, 2015.
Source	40 C.F.R. 60 Subpart OOOOa – Pneumatic Controllers, Pneumatic Pumps, and Sweetening Units	Stationary source does not have any natural gas pneumatic devices or sweetening units.
Source	40 C.F.R. 60 Subpart OOOOa – Process Units	Stationary source is not an onshore natural gas processing plant as defined in Subpart OOOOa.
Source	40 C.F.R. 61 Subpart J, 40 C.F.R. 61 Subpart Y	No process components or storage vessels in benzene service, as defined under 40 C.F.R. 61.111.
Source	40 C.F.R. 61 Subpart V	Stationary source does not operate equipment in volatile hazardous air pollutant (VHAP) service, as defined under 40 C.F.R. 61.241.
Source	40 C.F.R. 61 Subpart BB, 40 C.F.R. 61 Subpart FF	Stationary source does not conduct benzene transfer operations or benzene waste operations.
Source	40 C.F.R. 61.05(a), 61.07, 61.09, 61.10, 61.13, 61.14	Stationary source is a demolition and renovation operation and is exempt from these requirements.
Source	40 C.F.R. 61.142, 61.149, 61.143, 61.144, 61.146, 61.147, 61.148	Stationary Source is not an Asbestos Mill. Roadways are not exposed to asbestos tailings or asbestos containing waste. The source does not engage in any manufacturing operations using commercial asbestos, spray apply asbestos containing materials, engage in any fabricating operations using commercial asbestos, install or reinstall on any facility component insulation material containing commercial asbestos.
Source	40 C.F.R. 63 Subpart HH	The stationary source exclusively processes, stores, or transfers black oil. Per 40 C.F.R. 63.760(e)(1), the stationary source is exempt from 40 C.F.R. 63 Subpart HH.

Section 11. Visible Emissions Forms

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 in https://www3.epa.gov/ttnemc01/methods/webinar8.pdf).

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

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AIR PERMITS PROGRAM - VISIBLE EMISSIONS OBSERVATION FORM

Page No.

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. SO_2 Material Balance Calculation

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

A. = 31,200 x **($wt\%S_{fuel}$)** = 31,200 x _____ = _____

B. = 0.148 x **($wt\%S_{fuel}$)** = 0.148 x _____ = _____

C. = 0.396 x **($wt\%C_{fuel}$)** = 0.396 x _____ = _____

D. = 0.933 x (**$wt\%H_{fuel}$**) = 0.933 x _____ = _____

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

F. = 20.9 – (**$vol\%_{dry}O_{2,\ exhaust}$**) = 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, respectively, in the fuel. These percentages should total 100%.

The fuel weight percent of sulfur ($wt\%S_{fuel}$) is obtained pursuant to Condition 12.1.a(ii) or Condition 12.1.b. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (**$vol\%_{dry}O_{2,\ exhaust}$**) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same emissions unit load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **$wt\%S_{fuel}$** = 1.0%, then enter 1.0 into the equations not 0.01 and if **$vol\%_{dry}O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13. Notification Form[40]

Badami Development Facility — **Stationary Source Name**

AQ0417TVP04 — **Air Quality Permit Number.**

Savant Alaska, LLC

Company Name

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

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

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

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

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

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

☐ Excess Emissions - Complete Section 1 and Certify

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

☐ Deviation from Permit Conditions - Complete Section 2 and Certify

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

☐ Deviation from COBC[41], CO[42], or Settlement Agreement - Complete Section 2 and Certify

[40] Revised as of July 22, 2020.

[41] Compliance Order By Consent

[42] Compliance Order

Section 1. Excess Emissions

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

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

☐Start Up/Shut Down
☐Natural Cause (weather/earthquake/flood)
☐Control Equipment Failure
☐Scheduled Maintenance/Equipment Adjustments
☐Bad fuel/coal/gas
☐Upset Condition
☐Other _____

(c) **Description**

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

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

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

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

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

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

(f) **Corrective Actions:**

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

(g) **Unavoidable Emissions:**

Do you intend to assert that these excess emissions were unavoidable? ☐ YES ☐ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ YES ☐ NO

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

Section 2. Permit Deviations

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

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

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

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

EU ID	EU Name	Permit Condition /Potential Deviation

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

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

(d) **Corrective Actions:**

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

Certification:

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

Printed Name:_____Title_____Date _____

Signature:_____ Phone number_____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 87.)*

Beginning September 7, 2023, Excess Emissions and Permit Deviations must be submitted through the AOS Permittee Portal at http://dec.alaska.gov/applications/air/airtoolsweb/.

This Notification Form may only be used to satisfy the reporting requirements if the Department has approved alternative reporting options in writing prior to submittal. 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/.

[18 AAC 50.346(b)(3)]