

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. AQ0741TVP04

Issue Date: Public Comment - July 31, 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, **Cook Inlet Energy LLC**, for the operation of the **Kustatan Production 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 No. AQ0741MSS03 have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit No. AQ0741TVP03 and its revision expires.

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

James R. Plosay, Manager
Air Permits Program

Table of Contents

	Abbreviations and Acronyms	iv
Section 1.	Stationary Source Information.....	1
	Identification	1
Section 2.	Emissions Unit Inventory and Description	2
Section 3.	State Requirements	3
	Visible Emissions Standard	3
	Visible Emissions Monitoring, Recordkeeping, and Reporting (MR&R).....	3
	Particulate Matter (PM) Emissions Standard.....	8
	PM MR&R.....	8
	Sulfur Compound Emissions Standard	10
	Sulfur Compound MR&R.....	10
	Preconstruction Permit Requirements.....	12
	Insignificant Emissions Units	15
Section 4.	Federal Requirements	16
	40 C.F.R. Part 60 New Source Performance Standards (NSPS)	16
	NSPS Subpart A – General Provisions	16
	NSPS Subpart GG – Stationary Gas Turbines, EU IDs 1 and 2	20
	40 C.F.R. Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)	27
	NESHAP Subpart A – General Provisions	27
	NESHAP Subpart ZZZZ – Stationary RICE, EU IDs 9, 9a	28
	40 C.F.R. Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP)	32
	Subpart A – General Provisions & Subpart M – Asbestos	32
	40 C.F.R. Part 82 Protection of Stratospheric Ozone	32
	NESHAP Applicability Determination Requirements.....	33
Section 5.	General Conditions	34
	Standard Terms and Conditions.....	34
	Open Burning Requirements.....	37
Section 6.	General Source Testing and Monitoring Requirements.....	39
Section 7.	General Recordkeeping and Reporting Requirements.....	42
	Recordkeeping Requirements	42

	Reporting Requirements	42
Section 8.	Permit Changes and Renewal	48
Section 9.	Compliance Requirements	50
	General Compliance Requirements	50
	Compliance Schedule.....	51
Section 10.	Permit As Shield from Inapplicable Requirements	52
Section 11.	Kustatan Production Facility Public Access Control Plan.....	54
Section 12.	Visible Emissions Forms	56
Section 13.	SO ₂ Material Balance Calculation	58
Section 14.	Notification Form.....	59

Abbreviations and Acronyms

AAC.....	Alaska Administrative Code	MMscf.....	million standard cubic feet
ADEC.....	Alaska Department of Environmental Conservation	MR&R.....	monitoring, recordkeeping, and reporting
Administrator.....	EPA and the Department.	NAICS.....	North American Industrial Classification System
AOS.....	Air Online Services	NESHAP.....	National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
AS.....	Alaska Statutes	NH ₃	ammonia
ASTM.....	American Society for Testing and Materials	NO _x	nitrogen oxides
BACT.....	best available control technology	N ₂ O.....	Nitrous Oxide
bHp.....	brake horsepower	NSPS.....	New Source Performance Standards [as contained in 40 C.F.R. 60]
CAA or The Act.....	Clean Air Act	O & M.....	operation and maintenance
CDX.....	Central Data Exchange	O ₂	oxygen
CEDRI.....	Compliance and Emissions Data Reporting Interface	PAL.....	plantwide applicability limitation
C.F.R.	Code of Federal Regulations	Pb.....	lead
CIE.....	Cook Inlet Energy	PM.....	particulate matter
CO.....	carbon monoxide	PM ₁₀	particulate matter less than or equal to a nominal 10 microns in diameter
CO _{2e}	CO ₂ -equivalent	PM _{2.5}	particulate matter less than or equal to a nominal 2.5 microns in diameter
Department.....	Alaska Department of Environmental Conservation	ppm.....	parts per million
dscf.....	dry standard cubic foot	ppmv, ppmvd.....	parts per million by volume on a dry basis
EPA.....	US Environmental Protection Agency	psia.....	pounds per square inch (absolute)
EU.....	emissions unit	PSD.....	prevention of significant deterioration
EU ID.....	emissions unit identification number	PTE.....	potential to emit
GACT.....	Generally Available Control Technology	SIC.....	Standard Industrial Classification
GAPCP.....	Good Air Pollution Control Practice	SIP.....	State Implementation Plan
GHG.....	Greenhouse Gas	SPC.....	Standard Permit Condition
gr/dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	SO ₂	sulfur dioxide
gph.....	gallons per hour	tph.....	tons per hour
HAPs.....	hazardous air pollutants [as defined in AS 46.14.990]	TPY.....	tons per year
Hp.....	horsepower	VOC.....	volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
kPa.....	kiloPascals	VOL.....	volatile organic liquid [as defined in 40 C.F.R. 60.111b, Subpart Kb]
KPF.....	Kustatan Production Facility	vol%.....	volume percent
LAER.....	lowest achievable emission rate	wt%.....	weight percent
MACT.....	maximum achievable control technology [as defined in 40 C.F.R. 63]	wt% _{fuel}	weight percent of sulfur in fuel
MMBtu/hr.....	million British thermal units per hour		

Section 1. Stationary Source Information

Identification

Permittee:	Cook Inlet Energy LLC 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503	
Stationary Source Name:	Kustatan Production Facility	
Location:	60° 43' 28" North; 151° 45' 36" West	
Physical Address:	West Forelands Cook Inlet, AK	
Owner:	Cook Inlet Energy, LLC 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503	
Operator:	Cook Inlet Energy, LLC 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503	
Permittee's Responsible Official:	David Pascal, Chief Operating Officer 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503	
Designated Agent:	Perkins Coie LLP – Elena Romerdahl, Partner 1029 W. 3 rd Ave., Suite 300 Anchorage, AK 99501	
Stationary Source and Building Contact:	David Pascal, Chief Operating Officer 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503 (907) 433-3822 dpascal@glacieroil.com	
Fee Contact:	Lynnette Peluso, Regulatory and Compliance Lead 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503 (907) 433-3829 lpeluso@glacieroil.com	
Permit Contact:	Lynnette Peluso, Regulatory and Compliance Lead 188 W. Northern Lights Blvd., Suite 510 Anchorage, AK 99503 (907) 433-3829 lpeluso@glacieroil.com	
Process Description:	SIC Code	1311 - Crude Petroleum and Natural Gas
	NAICS Code:	211120 - Crude Petroleum 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, unless noted elsewhere in the permit.

Table A - Emissions Unit Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Rating/Size	Fuel	Installation or Construction Date
Turbine Generators					
1	Turbine Generator #1	Solar Taurus 60-7301S	5,652 kW	Natural Gas	2002
2	Turbine Generator #2	Solar Taurus 60-7301S	5,652 kW	Natural Gas	2002
Heaters					
3	Heater Treater #1	NATCO Electromax Model VFH-CWW	6.2 MMBtu/hr	Natural Gas	2002
4	Heater Treater #2	NATCO Electromax Model VFH-CWW	6.2 MMBtu/hr	Natural Gas	2002
5	Heater Treater #3	NATCO Electromax Model VFH-CWW	6.2 MMBtu/hr	Natural Gas	2002
6	Crude Heater #1	NATCO Natural Draft Burners	8.0 MMBtu/hr	Natural Gas	2002
7	Crude Heater #2	NATCO Natural Draft Burners	8.0 MMBtu/hr	Natural Gas	2002
8	Crude Heater #3	NATCO Natural Draft Burners	8.0 MMBtu/hr	Natural Gas	2002
Diesel Engines					
9	Fire Water Pump	Cummins 6BTA5.9 F4	160 Hp	Diesel	2002
9a	Backup Generator	Caterpillar 3406 CDITA	519 Hp	Diesel	2002
Miscellaneous Equipment					
10	Process Flare	Tornado Model TTI-SLT	1.92 MMscf/hr	Fuel Gas	2002
Storage Tanks					
12	T-133	Crude Tank No. 1	420,000 gal	N/A	2002
13	T-134	Crude Tank No. 2	420,000 gal	N/A	2002
14	T-135	Crude Tank No. 3	420,000 gal	N/A	2002
15	T-140	Slop Oil Tank	420,000 gal	N/A	2002
16	T-142	Produced Water Tank	420,000 gal	N/A	2002

Notes:

- EU IDs 12 – 16 are considered insignificant on an emission rate basis under 18 AAC 50.326(e). However, the units are listed in the table because they 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 1 through 10 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 each of EU IDs 9 and 9a, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e)¹ during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 76 for the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 75 if any of EU IDs 9 and 9a reaches any of the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.
 - a. For each of EU IDs 9 and 9a, monitor and record the monthly and consecutive 12-month operating hours.
 - b. For each of EU IDs 9 and 9a, report the consecutive 12-month operating hours in the operating report under Condition 75 for each month in the period covered by the report.
- 1.2. For EU IDs 1 through 8, burn only gas as fuel. In each operating report under Condition 75 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 74 if any fuel other than gas is burned in any of these emissions units.
- 1.3. For EU ID 10, monitor, record and report in accordance with Condition 5.

[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), & 50.346(c)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

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

Liquid Fuel-Burning Equipment

- 2. Visible Emissions Monitoring.** When required by Condition 1.1, or in the event of replacement² during the permit term, the Permittee shall observe the exhaust of EU IDs 9 and 9a for visible emissions using the Method 9 Plan under Condition 2.2.

¹ Significant emissions threshold equates to 500 hours for EU ID 9, and 243 hours for EU ID 9a.

² "Replacement," as defined in 40 C.F.R. 51.166(b)(32).

- 2.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule specified in Conditions 2.2.b through 2.2.e that remains in effect from a previous permit.
- 2.2. **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.³
- a. First Method 9 Observation. Except as provided in Condition 2.1, observe the exhausts of EU IDs 9 and 9a according to the following criteria:
- (i) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.⁴ Except as provided in Condition 2.2.e, after the First Method 9 observation:
- (A) For EU IDs 9 and 9a, comply with Condition 1.1.
- (ii) For each of EU IDs 9 and 9a, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Condition 1.1; or for an emissions unit with intermittent operations, within the first 30 days during the unit's next scheduled operation.
- b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.2.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 2.2.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.
- d. Annual Method 9 Observations. After at least two semiannual observations under Condition 2.2.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

³ Visible emissions observations are not required during emergency operations.

⁴ "Fully operational" means upon completion of all functionality checks and commissioning after unit installation. "Installation" is complete when the unit is ready for functionality checks to begin.

- (ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following 14 months after the preceding observation.
- e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.2.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)]

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

3.1. For all Method 9 observations,

- a. the observer shall record the following:
 - (i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in Section 12;
 - (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 12; 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.
- 3.2. The records required by Conditions 3.1 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)]

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

- 4.1. In the first operating report required in Condition 75 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.
- 4.2. Include in each operating report required under Condition 75 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; and
 - b. a summary of any monitoring or recordkeeping required under Conditions 2 and 3 that was not done.
- 4.3. Report under Condition 74
 - a. the results of Method 9 observations that exceed 20 percent average opacity for any six-consecutive-minute period; and
 - b. if any monitoring under Condition 2 was not performed when required, report within three days of the date 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

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

- 5.1. Observe flare events⁵ on EU ID 10, 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 an initial visible emissions observation on EU ID 10 within 12 months of the effective date of this permit.
 - b. Conduct subsequent visible emissions observations within 14 months of, but not earlier than three months after, the preceding flare event visible emissions observation.
 - c. If there are no flare events that meet the requirements of Conditions 5.1.a or 5.1.b, the Permittee shall observe the next daylight flare event.
- 5.2. 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.
- 5.3. The records required by Condition 5.2 may be kept in electronic format.
- 5.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.
- 5.5. Include the following in the operating report required by Condition 75 for the period covered by the report:
 - a. copies of the records required by Condition 5.2; and
 - b. if an annual flare event observation required by Condition 5.1.a or Condition 5.1.b 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.
- 5.6. Report under Condition 74:
 - a. whenever the visible emissions standard in Condition 1 is exceeded; or
 - b. the monitoring required under Condition 5.1 is not completed, except as allowed under Condition 5.4.

⁵ 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.

- 5.7. If no flare events are monitored during a certification period, the Permittee shall certify compliance under Condition 76 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

6. **Industrial Process and Fuel-Burning Equipment PM Emissions.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 10 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)]

- 6.1. For each of EU IDs 9 and 9a, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e)⁶ during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 76 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 75 if any of EU IDs 9 and 9a reaches any of the significant emissions thresholds and monitor, record and report in accordance with Conditions 7 through 9 for the remainder of the permit term for that emissions unit.
- 6.2. For EU IDs 1 through 8, the Permittee shall comply with Condition 1.2.
- 6.3. For EU IDs 10, the Permittee shall comply with Condition 5.

[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 and Turbines

7. **PM Monitoring.** The Permittee shall conduct source tests on EU IDs 9 and 9a (when required by Condition 6.1), 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)]

- 7.1. If the result of any Method 9 observation conducted under Condition 2.2 for any of EU IDs 9 and 9a is greater than the criteria of Condition 7.2.a or Condition 7.2.b, the Permittee shall, within six months of that Method 9 observation, either:

⁶ Significant emissions threshold equates to 500 hours for EU ID 9, and 243 hours for EU ID 9a.

- 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 7.2; or
 - b. except as exempted in Condition 7.4, conduct a PM source test according to requirements set out in Section 6.
- 7.2. Take corrective action or conduct a PM source test, in accordance with Condition 7.1, if any Method 9 observation under Condition 2.2 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.
- 7.3. During each one-hour PM source test run under Condition 7.1.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.
- 7.4. The PM source test requirements in Condition 7.1.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 two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.2) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 7.2.

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

- 8.1. Keep records of the results of any source test and visible emissions observations conducted under Condition 7.

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

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

- 9.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 7.2.a or Condition 7.2.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 7.2.
- 9.2. In each operating report under Condition 75, include:

- a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 7; and
 - b. copies of any visible emissions observation results greater than the thresholds of Condition 7.2, if they were not already submitted.
- 9.3. Report in accordance with Condition 74
- a. anytime the results of a PM source test exceed the PM emissions standard in Condition 6; or
 - b. if the requirements under Condition 7.1 were triggered and the Permittee did not comply on time with either Condition 7.1.a or 7.1.b. Report the deviation within 24 hours of the date compliance with Condition 7.1 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

- 10. Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU IDs 1 through 10 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*⁷ (EU IDs 9 and 9a)

- 11. Sulfur Content of Fuel Oil.** The Permittee shall comply with Condition 19.
- 12. Sulfur Compound Monitoring and Recordkeeping.** 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 0.5 percent by weight (wt%S_{fuel}) or less, keep receipts that specify fuel grade and amount; or
 - (ii) If the fuel grade does not require a sulfur content 0.5 wt%S_{fuel} or less, keep receipts that specify fuel grade and amount; and either
 - (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

⁷ *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.

- b. Test the sulfur content of the fuel in each storage tank that supplies fuel to EU IDs 9 and 9a 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)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).
- 12.3. If a shipment of fuel contains greater than 0.75 wt% S_{fuel} or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 wt% S_{fuel} , the Permittee shall calculate SO₂ emissions in parts per million (ppm) using either the SO₂ material balance calculation in Section 13 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 SO₂ emissions calculated under Condition 12.3 exceed 500 ppm, the Permittee shall report in accordance with Condition 74. 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 75 for each month covered by the report:
- a. a list of the fuel grades received at the stationary source;
 - b. for any fuel received with a fuel sulfur content greater than 0.5 wt% S_{fuel} , the fuel sulfur content of the shipment;
 - c. the results of all fuel sulfur analyses conducted under Condition 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 0.75 wt% S_{fuel} , the calculated SO₂ 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)]

Fuel Gas (EU IDs 1 through 8 and 10)

14. The Permittee will comply with the limit in Condition 10 as follows:

- 14.1. **Sulfur Content of Gas Burned in EU IDs 1 and 2.** For EU IDs 1 and 2, the Permittee shall comply with Condition 34.
- 14.2. **H₂S Content of Gas Burned in EU IDs 3 through 8 and 10.** For EU IDs 3 through 8 and 10, the H₂S content of the gas burned in the emission units shall not exceed 700 parts per million by volume (ppmv)⁸.

⁸ Permittee assumed 700 ppmv H₂S in estimating SO₂ emissions from EU IDs 3 through 8 and 10.

- 15. Sulfur Compound Monitoring.** For EU IDs 1 through 8 and 10, the Permittee shall:
- 15.1. analyze a representative sample of the gaseous fuel monthly to determine the H₂S content using either ASTM D4084, D4810, D4913, or GPA Standard 2377, or other listed method approved in 18 AAC 50.035(b)-(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 H₂S content analysis required under Condition 15.1.
- 17. Sulfur Compound Reporting.** The Permittee shall report as follows:
- 17.1. Report as excess emissions, in accordance with Condition 74, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 10.
- 17.2. Include copies of the records required by Condition 16 with the operating report required by Condition 75 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 Permit⁹ Requirements

Ambient Air Quality Standards

- 18.** Ambient air quality standards compliance for the stationary source operation is demonstrated at the posted boundary specified in Cook Inlet Energy, LLC's Access Control Plan set out in Section 11. Establish and maintain ambient air boundaries as described in Section 11.

[Minor Permit No. AQ0741MSS03, Condition 5, 4/26/2018]
[18 AAC 50.326(a)]
[40 C.F.R. 71.2 & 71.6(a)(1) & (3)]

- 19. SO₂ Requirements.** Limit the fuel sulfur content of the diesel fuel burned at the Kustatan Production Facility to no greater than 0.5 percent by weight.

- 19.1. Monitor and record as described in Condition 12.
- 19.2. Report as described in Condition 13.

[Minor Permit No. AQ0741MSS03, Condition 6, 4/26/2018]
[18 AAC 50.326(a)]
[40 C.F.R. 71.2 & 71.6(a)(1) & (3)]

Limits to Avoid Classification as PSD Major Source

20. Nitrogen Oxides (NO_x) Emission Limits

- 20.1. Limit NO_x emissions from EU IDs 1 and 2 as follows:

⁹ *Preconstruction Permit* refers to federal PSD permits, state-issued permits-to-operate issued on or before January 17, 1997 (these permits cover both construction and operations), construction permits issued on or after January 18, 1997, and minor permits issued on or after October 1, 2004.

- a. Install “SoLoNO_x” low NO_x combustion technology on EU IDs 1 and 2;
 - b. Limit combined NO_x emissions from EU IDs 1 and 2 to no greater than 64.5 tons per 12-month rolling period, expressed as NO₂.
- 20.2. Monitoring and Recording for EU IDs 1 and 2:
- a. Calculate and record the NO_x emissions, expressed as NO₂ for each monthly period and 12-month rolling period using hours of operation and the following emission factors¹⁰:
 - (i) 4.7 pounds per hour (lb/hr) for EU ID 1;
 - (ii) 6.1 lb/hr for EU ID 2.
 - b. Verify NO_x emission factors from the source testing required by Condition 33.1.a. Use exhaust properties determined by 40 C.F.R. 60 Appendix A, Method 19, for each load tested. Use the higher heating value throughout the analysis.
 - c. In the first operating report due after the Department approval of the source test results, calculate and report the NO_x emissions using the worst-case emission factor for each of the emission units based on the latest source test results for each of these emission units. Alternatively, upon Department written approval, the Permittee may recalculate emissions using the new emission factors beginning effective with the month in which the source test was conducted.
- 20.3. Report the cumulative total monthly and 12-month rolling NO_x emissions, expressed as NO₂, from EU IDs 1 and 2 in the operating report required by Condition 75.
- 20.4. Limit operations of EU ID 9a to no more than 500 hours per 12-month rolling period.
- 20.5. Monitor and record the hours of operation of EU ID 9a for each calendar month.
- 20.6. Report the cumulative total monthly and 12-month rolling hours of operation of EU ID 9a in the operating report required by Condition 75.

[Minor Permit No. AQ0741MSS03, Condition 7, 4/26/2018]
[18 AC 50.326(a)]
[40 C.F.R. 71.2 & 71.6(a)(1) & (3)]

21. Carbon Monoxide (CO) Emissions Limits

- 21.1. For EU IDs 1 and 2, limit combined total CO emissions to less than 136 tons per 12-month rolling period.

¹⁰ The NO_x emission factors for EU IDs 1 and 2 are from source tests approved by the Department on August 21, 2019, plus 10 percent to adjust for load and temperature. These factors should be used until new factors are available from a more recent Department-approved source test report.

- 21.2. For EU ID 10, limit the fuel gas burned to no more than 70 million standard cubic feet (MMscf) in any 12-month rolling period.
- 21.3. Operate EU IDs 1 and 2 at all times, except at startup, shutdown, malfunction, and performance and emission tests at no less than the lower of either 50% load or the minimum load for which the most recent CO emission source tests were conducted that do not exceed a combined 31 lb/hr¹¹.
- 21.4. Monitoring and Recording for EU IDs 1 and 2:
 - a. Verify CO emission factors from applicable measurements from the source testing required by Condition 33.1.a. Use exhaust properties determined by 40 C.F.R. 60 Appendix A, Method 19, for each load tested. Use higher heating value throughout the analysis.
 - b. If the combined emission factors for EU IDs 1 and 2 for worst case operation¹² exceed 31 lb/hr, calculate and record the CO emissions for each month and 12-month rolling period for the period preceding submission of the source test results. Use hours of operation and the worst-case emission factor (for loads over 50%) for each unit in the calculations.
 - c. For both EU IDs 1 and 2, monitor the date, time, duration, and reason for all operations less than the lower of the loads listed in Condition 21.3.
- 21.5. Monitor the fuel gas burned in EU ID 10 for each calendar month. Use flow meters and totalizers accurate to ± 10 percent. Calculate and record the 12-month rolling fuel gas burned for each month of the reporting period, by the end of the following month.
- 21.6. Report in the operating report required by Condition 75 for each month of the reporting period:
 - a. The cumulative 12-month rolling CO emission from EU IDs 1 and 2 recorded in Condition 21.4.b; and
 - b. The 12-month rolling fuel gas burned in EU ID 10 recorded in Condition 21.5.

[Minor Permit No. AQ0741MSS03, Condition 8, 4/26/2018]
[18 AAC 50.326(a)]
[40 C.F.R. 71.2 & 71.6(a)(1) & (3)]

22. Volatile Organic Compounds (VOC) Emission Limits – Tank Closed Vent System.

- 22.1. Equip the crude tanks, slop oil tank and produced water tank, EU IDs 12 through 16, with a closed vent system and control device meeting the following specifications:

¹¹ Combined emission factor of 31 lb/hr for EU IDs 1 and 2 is equivalent to 136 TPY of unlimited operations.

¹² While operating above 50% load.

- a. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions; and
- b. The control device shall be designed and operated to reduce inlet VOC emission by 95 percent or greater.

[Minor Permit No. AQ0741MSS03, Condition 9, 4/26/2018]
[18 AAC 50.326(a)]
[40 C.F.R. 71.2 & 71.6(a)(1) & (3)]

Insignificant Emissions Units

23. 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:

23.1. **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)]

23.2. **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)]

23.3. **Sulfur Compound Standard:** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c)]

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

- a. Submit the compliance certifications of Condition 76 based on reasonable inquiry;
- b. Comply with the requirements of Condition 57;
- c. Report in the operating report required by Condition 75 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds; and
- d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 23.1, 23.2, and 23.3.

[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

24. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility¹³ or existing facility¹⁴ regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator¹⁵ 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]

24.1. 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]

24.2. 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]

24.3. 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 include¹⁶

- 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]

24.4. a notification of any proposed replacement of components at 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:

¹³ *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.

¹⁴ *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.

¹⁵ The Department defines the “the Administrator” to mean “the EPA and the Department.”

¹⁶ 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.

- 25. 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 1 or 2, any malfunction of the air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1 or 2 is inoperative.

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

- 26. NSPS Subpart A Recordkeeping.** For EU IDs 1 and 2, 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 70, 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)]

- 27. NSPS Subpart A Performance (Source) Tests.** The Permittee shall conduct source tests according to Section 6 and as required in this condition 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 tests.

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

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

[40 C.F.R. 60.8(a), Subpart A]

- 27.2. Conduct source tests and reduce data as set out in 40 C.F.R. 60.8(b), and provide the Department copies of any EPA waivers or approvals of alternative methods.

[40 C.F.R. 60.8(b), Subpart A]

- 27.3. Conduct source tests under conditions specified by EPA to be based on representative performance of EU IDs 1 and 2. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 C.F.R. 60.8(c), Subpart A]

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

[40 C.F.R. 60.8(d), Subpart A]

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

- a. Sampling ports adequate for test methods applicable to EU IDs 1 and 2. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;
- b. Safe sampling platform(s);
- c. Safe access to sampling platform(s); and
- d. Utilities for sampling and testing equipment.

[40 C.F.R. 60.8(e), Subpart A]

- 27.6. Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.
- a. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.
 - b. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the EPA's approval, be determined using the arithmetic mean of the results of the two other runs.
 - c. Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in 40 C.F.R. 60.8(f)(2)(i) through (vi).

[40 C.F.R. 60.8(f), Subpart A]

- 28. 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 1 and 2 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1 and 2.

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

- 29. 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 32 or 34, 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 1 and 2 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]

- 30. 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 32 or 34. 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 GG¹⁷ – Stationary Gas Turbines, EU IDs 1 and 2

31. NSPS Subpart GG Applicability. For EU IDs 1 and 2 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]

32. 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 (O₂) and ISO standard day conditions,¹⁸ from EU IDs 1 and 2 listed in Table A to exceed 173.6 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]

33. 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 32, as follows:

33.1. **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 32, the Permittee shall satisfy either Condition 33.1.a(i) or 33.1.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 NO_x limit shown in Condition 32, the Permittee shall conduct a NO_x and O₂ source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A:

(A) Within 5 years of the latest performance test.

¹⁷ The provisions of NSPS Subpart GG listed in Conditions 31 through 35 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.

¹⁸ 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)]

- (ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the NO_x limit shown in Condition 32, the Permittee shall conduct a NO_x and O₂ 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 NO_x limit shown in Condition 32.
- b. **Substituting Test Data.** The Permittee may use results of a source test completed under Condition 33.1.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 NO_x limit shown in Condition 32, and are projected under Condition 33.1.c to be less than or equal to 90 percent of the 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 66:
 - (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 NO_x limit shown in Condition 32.
- c. **Load.** The Permittee shall comply with the following:

- (i) Conduct all tests under Condition 33.1 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 33.1 to predict the highest load at which emissions will comply with the limit in Condition 32.
 - (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 32;
 - (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 33.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 33.1.c(iii)(C).
- (iv) In order to perform a source test required under Condition 33.1, the Permittee may operate a turbine at a higher load than that prescribed by Condition 33.1.c(iii).
- (v) For the purposes of Conditions 33.1 through 33.3, 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.

33.2. **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 33.1.c(iii) does not show compliance with the NO_x limit in Condition 32 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 33.2.a shall be hourly or otherwise as approved by the Department.
 - (iii) Within one month after submitting a demonstration under Condition 33.1.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 33.1.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.

33.3. **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 75 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 33.1.c(iii):
 - (i) the load limit;
 - (ii) the turbine identification; and
 - (iii) the highest load recorded under Condition 33.2.a during the period covered by the operating report.
- b. The Permittee shall report under Condition 74 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 33.1.a(i) or 33.1.a(ii) but not performed; or
 - (iii) the turbine was operated at a load exceeding that allowed by Conditions 33.1.c(iii)(B) and 33.1.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]

34. **NSPS Subpart GG SO₂ Standard.** For EU IDs 1 and 2, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 wt% S_{fuel} (8000 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]

35. **NSPS Subpart GG SO₂ MR&R Requirements.** The Permittee shall monitor, record, and report compliance with the applicable Subpart GG SO₂ standard in Condition 34, as follows:

35.1. **Monitoring.** The Permittee shall monitor compliance with the Subpart GG SO₂ standard in Condition 34, 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 35.1.b. Determine the sulfur content of the fuel using total sulfur methods described in Condition 35.2. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), 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),¹⁹ 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:²⁰

[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.

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

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

¹⁹ 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.

²⁰ Periodic fuel sulfur monitoring under Condition 35.1.a and reporting under Conditions 35.4.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 35.1.b.

[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 35.1.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]

- (ii) *Custom schedules.* Notwithstanding the requirements of Condition 35.1.d(i), 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 34. 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]

35.2. **Test Methods and Procedures.** If the owner or operator is required under Condition 35.1.d to periodically determine the sulfur content of the fuel combusted in the turbine, 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]

35.3. **Recordkeeping.** The Permittee shall keep records as required by Conditions 35.1 and 35.2, and in accordance with Condition 70.

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

35.4. **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 35.1.a, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c), 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 40 C.F.R. 60.7(c), 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 35.1.b, the Permittee shall include with the operating report under Condition 75 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).

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

NESHAP Subpart A – General Provisions

36. NESHAP Subpart A Applicability. The Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in

36.1. Table 8 to NESHAP Subpart ZZZZ for EU IDs 9 and 9a 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 ZZZZ²¹ – Stationary RICE, EU IDs 9, 9a

37. NESHAP Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for existing²² (EU IDs 9 and 9a) stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

37.1. For EU IDs 9 and 9a, existing stationary RICE units, the Permittee shall at all times comply with Conditions 38 through 41.

[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), and 63.6605(a), Subpart ZZZZ]

38. NESHAP Subpart ZZZZ GAPCP, Operation and Maintenance Requirements. The Permittee shall comply with the following:

[18 AAC 50.040(c)(23) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (3)(i)]

38.1. At all times, operate and maintain EU IDs 9 and 9a, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 9 and 9a.

[40 C.F.R. 63.6605(b), Subpart ZZZZ]

38.2. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to either:

- a. the manufacturer's emission-related written instructions for operation and maintenance; or
- b. a maintenance plan developed by the Permittee which must provide, to the extent practicable, for the maintenance and operation of the engine(s) in a manner consistent with good air pollution control practice for minimizing emissions.

[40 C.F.R. 63.6625(e)(4), 63.6640(a), & Table 6 (item 9), Subpart ZZZZ]

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

[40 C.F.R. 63.6625(h) and Table 2d item 1, Subpart ZZZZ]

²¹ The provisions of NESHAP Subpart ZZZZ listed in Conditions 36 through 40 are current as amended through May 30, 2023. 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 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.

- 38.4. For emergency engine EU ID 9, the Permittee shall install a non-resettable hour meter if one is not already installed.

[40 C.F.R. 63.6625(f)]

39. NESHAP Subpart ZZZZ Work and Management Practices Standards and Monitoring. For EU IDs 9 and 9a, the Permittee shall comply with the following work and management practices and monitoring requirements:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]

[40 C.F.R. 71.6(a)(1) & (3)(i)]

[40 C.F.R. 63.6603(a) & (b)(1), 63.6640(a), and 63.6625(i), Subpart ZZZZ]

[Table 2d and Table 6, Subpart ZZZZ]

- 39.1. **Management Practices for Stationary Emergency²³ CI RICE:** For EU ID 9, except during periods of startup, the Permittee shall comply with the following management practices:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours or annually, whichever comes first, and replace as necessary.

[Table 2d item 4, Subpart ZZZZ]

- 39.2. **Management Practices for Non-Emergency Stationary CI RICE > 500 hp at Area Sources not Accessible by the Federal Aid Highway System:** For EU ID 9a, except during periods of startup, the Permittee shall comply with the following management practices:

- a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first, except as allowed by Condition 39.5;
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Table 2d (item 1 & Footnote 1), Subpart ZZZZ]

- 39.3. During periods of startup, the Permittee shall comply with Condition 38.3.

[Table 2d item 1, Subpart ZZZZ]

²³ If EU ID 9 is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required under Condition 39.1, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the Permittee may delay the management practice until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

[40 C.F.R. 63, Footnote 2 to Table 2d, Subpart ZZZZ]

- 39.4. Demonstrate continuous compliance with the requirements in Conditions 39.1 and 39.2 by complying with Condition 38.2.

[40 C.F.R. 63.6640(a) & Table 6 (item 9), Subpart ZZZZ]

- 39.5. The Permittee has the option to utilize an oil analysis program in order to extend the specified oil change requirements in Conditions 39.1.a and 39.2.a, as described below:

- a. The oil analysis must be performed at the same frequency specified for changing the oil in Conditions 39.1.a and 39.2.a.
- b. The analysis program must, at a minimum, analyze the following three parameters: Total Base Number (for CI engines), viscosity, and percent water content. The condemning limits for these parameters are as follows:
 - (i) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
 - (ii) viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
 - (iii) percent water content (by volume) is greater than 0.5.
- c. If all of the condemning limits in Conditions 39.5.b(i) through 39.5.b(iii) are not exceeded, the Permittee is not required to change the oil.
- d. If any of the limits in Conditions 39.5.b(i) through 39.5.b(iii) is exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis.
 - (i) If the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later.
- e. The analysis program must be part of the maintenance plan for the engine.

[40 C.F.R. 63.6625(i) and Table 2d (Footnote 1), Subpart ZZZZ]

- 39.6. **Operating Hour Limits for Emergency Engine.** For EU ID 9, the Permittee shall operate the emergency stationary RICE according to the requirements in Conditions 39.6.a - 39.6.c. In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 39.6.a - 39.6.c, is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions 39.6.a - 39.6.c, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

[18 AAC 50.040(c)(23)]
[40 C.F.R. 63.6640(f)]

- a. There is no time limit on the use of emergency stationary RICE in emergency situations.
[40 C.F.R. 63.6640(f)(1)]
- b. The Permittee may operate the emission unit for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of this unit is limited to 100 hours per calendar year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
[40 C.F.R. 63.6640(f)(2)]
- c. The Permittee may operate the emission unit up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing under Condition 39.6.b. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[40 C.F.R. 63.6640(f)(3) & (4)]

40. NESHAP Subpart ZZZZ Recordkeeping Requirements. The Permittee shall keep records, as follows:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a) (3)(ii)]

- 40.1. If electing to operate and maintain EU IDs 9 and 9a according to a maintenance plan developed by the Permittee as allowed under Condition 38.2.b, keep records of the maintenance conducted on EU IDs 9 and 9a in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to the maintenance plan.
[40 C.F.R. 63.6655(e)(3), Subpart ZZZZ]
- 40.2. If electing to utilize the oil analysis program described in Condition 39.5, keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine.
[40 C.F.R. 63.6625(i), Subpart ZZZZ]
- 40.3. For EU ID 9, keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 C.F.R. 63.6655(f)]

- 40.4. Keep records in a form suitable and readily available for expeditious review. Keep each record in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. 63.10(b)(1), except that all records may be retained off site.

[40 C.F.R. 63.6660 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.10(b)(1), Subpart A]

- 41. NESHAP Subpart ZZZZ Reporting Requirements.** The Permittee shall report, as follows:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(c)(3)(iii) & (c)(6)]

- 41.1. Include in the operating report required by Condition 75 a report of all deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 to Subpart ZZZZ) was not met.

[40 C.F.R. 63.6640(e) & 63.6650(f), Subpart ZZZZ]

- 41.2. Notify the Department in accordance with Condition 74 if any of the requirements in Conditions 36 through 41 were not met.

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

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

Subpart A – General Provisions & Subpart M – Asbestos

- 42.** 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

- 43. 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]

- 44. 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]

- 45. 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

- 46.** 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).
- 46.1. 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).
- 46.2. 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).
- 46.3. 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

47. 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)]

48. 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)]

49. 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)]

50. **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]

51. **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:

51.1. potential to emit of 378.67 TPY; or

51.2. 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]

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

- 52.1. 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 51.2. 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/>.
- 52.2. The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.
- 52.3. 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.
- 52.4. 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 51.1.

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

53. Good Air Pollution Control Practice (GAPCP). The Permittee shall do the following for EU IDs 3 through 8, 10, and 12 through 16:

- 53.1. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 53.2. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- 53.3. 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)]

54. 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)]

55. 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.

- 55.1. 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 55.1.a or to address the results of Department inspections that found potential problems; and
- (ii) to prevent future dust problems.

55.2. The Permittee shall report according to Condition 57.3.

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

56. 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)]

57. 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)]

57.1. **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 57.
- 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 57; or
 - (ii) the Department notifies the Permittee that it has found a violation of Condition 57.

57.2. **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 57; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

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

- a. With each stationary source operating report under Condition 75, 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 74.

58. 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 standard²⁴ listed in Conditions 32, 34, and 43 (refrigerants), the Permittee shall

- 58.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and
- 58.2. report in accordance with Condition 74.1.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

59. 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:

²⁴ 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.

59.1. 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

59.2. Include this condition in the annual certification required under Condition 76.

[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

- 60. 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)]

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

[18 AAC 50.220(b)]

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

61.2. 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.

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

62.1. 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]

62.2. 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]

62.3. 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]

62.4. 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 12 to record data.

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

62.5. 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]

62.6. Source testing for emissions of PM₁₀ 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]

62.7. 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]

63. 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)]

64. Test Exemption. The Permittee is not required to comply with Conditions 66, 67 and 68 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.2).

[18 AAC 50.345(a)]

65. 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)]

66. Test Plans. Except as provided in Condition 64, 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 60 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)]

67. Test Notification. Except as provided in Condition 64, 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)]

68. Test Reports. Except as provided in Condition 64, 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 71. 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)]

69. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 23.2, 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

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

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

70.2. 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

71. 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.

71.1. 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)]

72. 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.

72.1. 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)]

73. 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)]

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

74.1. **Excess Emissions Reporting.** Except as provided in Condition 57, 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 74.1.d.
- d. Report all other excess emissions not described in Conditions 74.1.a, 74.1.b, and 74.1.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 75 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)]

74.2. Permit Deviations Reporting. For permit deviations that are not “excess emissions,” as defined under 18 AAC 50.990:

- a. 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 75 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)]

74.3. 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 14 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)]

75. Operating Reports. During the life of this permit²⁵, the Permittee shall submit to the Department an operating report in accordance with Conditions 71 and 72 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.

- 75.1. 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.

75.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 75.1, the Permittee shall identify

- a. the date of the excess emissions or permit deviation;
- b. the equipment involved;
- c. the permit condition affected;
- d. a description of the excess emissions or permit deviation; and

²⁵ *Life of this permit* is defined as the permit effective dates, including any periods of reporting obligations that extend beyond the permit effective dates. For example, if a permit expires prior to the end of a calendar year, there is still a reporting obligation to provide operating reports for the periods when the permit was in effect.

- e. any corrective action or preventive measures taken and the date(s) of such actions; or
- 75.3. when excess emissions or permit deviation reports have already been reported under Condition 74 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.
- 75.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.2.e, 7.2, and 33.1.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.
- 75.5. **Transition from expired to renewed permit.** For the first period of this renewed operating permit, also provide the previous permit's operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

[18 AAC 50.346(b)(6) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

76. **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 72.
- 76.1. 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.
- 76.2. **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.

76.3. 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)]

77. Triennial Emission Inventory Reporting. Every third year by April 30, the Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH₃, NO_x, PM₁₀, PM_{2.5}, SO₂, VOC and lead (Pb) and lead compounds, as follows:

77.1. The Permittee shall report the annual emissions and the required data elements under Condition 77.2 every third year for the previous calendar year as scheduled by the EPA.²⁶

77.2. For each emissions unit and the stationary source, include in the report the required data elements²⁷ 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>.

77.3. 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/>.

78. Consistency of Reporting Methodologies. Regardless of permit classification, as of September 7, 2022, all stationary sources operating in the state shall report actual emissions to the Department, either upon request or to meet individual permit requirements, in order for the state to meet federal reporting requirements under 40 C.F.R. Part 51, Subpart A.

78.1. For the purposes of reporting actual or assessable emissions required under Condition 77 and Condition 51.2, the Permittee shall use consistent pollutant-specific emission factors and calculation methods for all reporting requirements for the stationary source.

[18 AAC 50.040(j)(4), 50.200, 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]

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

²⁶ 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 2017, 2020, 2023, 2026, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2023 is due April 30, 2024, triennial emission inventory report for 2026 is due April 30, 2027, etc.).

²⁷ 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.

- 79.1. **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 75 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.
- 79.2. **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

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

- 80.1. 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;
- 80.2. The information shall be submitted, as follows: (1) to the EPA's CDX and CEDRI online reporting system accessible via cdx.epa.gov, or (2) as an email attachment to the EPA's air permits mailbox (R10_Air_Permits@epa.gov), or (3) as a hardcopy by mail (only if absolutely necessary) 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, listed in order of EPA's preference;
- 80.3. 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
- 80.4. 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)]

81. 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)]

82. 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:

- 82.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 82.2. 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;
- 82.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f); and

82.4. 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)]

83. Operational Flexibility. The Permittee may make CAA Section 502(b)(10)²⁸ 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).

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

83.2. For each such change, the notification required by Condition 83.1 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.

83.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 83.

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

84. Permit Renewal. To renew this permit, the Permittee shall submit to the Department²⁹ 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)]

²⁸ 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.

²⁹ 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

- 85.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 85.1. included and specifically identified in the permit; or
 - 85.2. determined in writing in the permit to be inapplicable.
- [18 AAC 50.326(j)(3) and 50.345(a) & (b)]
- 86.** 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
- 86.1. an enforcement action;
 - 86.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - 86.3. denial of an operating permit renewal application.
- [18 AAC 50.040(j), 50.326(j) & 50.345(a) & (c)]
- 87.** 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)]
- 88.** 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)]
- 89.** 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
- 89.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 89.2. have access to and copy any records required by the permit;
 - 89.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 89.4. 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)]

Compliance Schedule

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

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

- 91.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or
- 91.2. 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)]

92. Table B identifies the emissions units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table B becomes applicable during the permit term, 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 B - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
1, 2	40 C.F.R. 60.7(a)(6)	No opacity observations required.
1, 2	40 C.F.R. 60.332(a)(1) – Standard for nitrogen oxide	Emission unit is not an Electric Utility Stationary Gas Turbine as defined in 40 C.F.R. 60 Subpart GG.
1, 2	40 C.F.R. 60, Subpart GG 60.334(a), (b) & (d) and 60.335(b)(4) – Monitoring of Operations	Emission unit is not equipped with water injection to control emissions of NO _x .
1, 2	40 C.F.R. 60, Subpart GG 60.334(e) & (f)	Emission unit commenced construction prior to July 8, 2004.
1, 2	40 C.F.R. 60, Subpart GG 60.334(g)	Emission unit is not subject to continuous monitoring requirements in 40 C.F.R. 60.334(a), (d), or (f).
1, 2	40 C.F.R. 60, Subpart GG 60.334(h)(1 & 2), (i), & (j)	The allowance for fuel bound nitrogen to calculate the NO _x emission limit under 40 C.F.R. 60.332 has not been claimed and Kustatan Production Facility has completed sufficient monitoring under previous Title I permits to demonstrate that the fuel gas used meets the definition of pipeline natural gas.
1, 2	40 C.F.R. 60, Subpart KKKK 60.4300 – Standards of Performance for New Stationary Sources	This requirement only applies to stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (100 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005.
3 – 8	40 C.F.R. 63 Subpart JJJJJ	This stationary source is not an industrial, commercial, or institutional boiler as defined in 40

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
		C.F.R. 63.11237. By definition, this emission unit is a process heater, an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam.
9, 9a	40 C.F.R. 63.6603(b), 63.6604, 63.6605(a), 63.6625(c), (d), (g), 63.6630, 63.6635, 63.6640, 63.6645(a), (b), (c), (d), (e), (f), 63.6650, 63.6655 – Subpart ZZZZ	40 C.F.R. 63.6603(b)(1) excludes units from the emission and operating limitations, therefore, recordkeeping requirements are also not required per 40 C.F.R. 63.6655(a). According to 40 C.F.R. 63.6604(d), the provisions of 40 C.F.R. 1090.305 do not apply to owners and operators of stationary CI ICE that are located in areas of Alaska not accessibly by the Federal Aid Highway System (FAHS) as described in 40 C.F.R. 63.6603(b)(1).
9, 9a	40 C.F.R. 63.6625(a), (b), 63.6655(b) – Subpart ZZZZ	Not required to use a CEMS, CPMS, or a CMS.
9, 9a	40 C.F.R. 60 Subpart IIII	Emission unit was constructed prior to the effective date of July 11, 2005.
9	40 C.F.R. 63.6612, 63.6615, 63.6620, 63.6645 – Subpart ZZZZ	Emergency stationary RICE are not subject to performance tests or other compliance demonstrations.
10	40 C.F.R. 60.18	This flare is not control devices used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61.
12 – 16	40 C.F.R. 60, Subpart Kb	The facility has chosen to comply with the alternative means of compliance in 40 C.F.R. 65.42(b)(5)(i) as allowed in Subpart Kb (40 C.F.R. 60.110b(e)(1)(i)) and install a control device designed and operated to reduce inlet VOC emissions by 95% or greater.
Source-wide	40 C.F.R. 60 Subparts J, Ja, GGG, GGGa, QQQ	Stationary source does not meet the definition for a petroleum refinery.
Source-wide	40 C.F.R. 60 Subpart KKK	Stationary source is not an onshore natural gas processing plant as defined in Subpart KKK.
Source-wide	40 C.F.R. 60 Subpart LLL	Stationary source does not operate natural gas sweetening units.
Source-wide	40 C.F.R. 60 Subpart OOOO	Facility was constructed in 2002, not between August 23, 2011 and September 18, 2015.
Source-wide	40 C.F.R. 60 Subpart OOOOa	Affected facilities did not commence construction, modification, or reconstruction from September 19, 2015 through December 6, 2022.
Source-wide	40 C.F.R. 61.142 – 61.144, 61.146 – 61.149, 61.151, 60.154, 61.155 – Subpart M	Stationary source does not engage in activities regulated by other sections of Subpart M.
Source-wide	40 C.F.R. 63, Subparts HH	The stationary source exclusively processes, stores, or transfers black oil (63.760(e)(1)).

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

Section 11. Kustatan Production Facility Public Access Control Plan

Purpose

The purpose of this Public Access Control Plan for the Kustatan Production Site is to protect the general public from public health and safety hazards incident to the heavy industrial activity planned at the Cook Inlet Energy, LLC property on the West Foreland, Cook Inlet, Alaska. The planned activity involves exploratory drilling for potential petroleum production. Cook Inlet Energy, LLC has established these reasonable restrictions on general public access to attain adequate protection of public health and welfare.

Cook Inlet Energy, LLC is committed to fully and adequately protecting the health and safety of its work force by meeting or exceeding the standards for air exposure of the Occupational Safety and Health Administration (OSHA) and, where the general public has access, the National and Alaska Ambient Air Quality Standards (AAQS). A primary purpose of this plan is to delineate the area to be protected and controlled for occupational health and safety from the area that is subject to unrestricted, general public access where AAQS are applicable. A secondary purpose is to ensure that reasonable measures are in place to accomplish reasonable restrictions on public access. The boundary is reflected in Figure 1, the Ambient Air Boundary Map.

General Information

The Kustatan Production site is located on the West Foreland, Cook Inlet, Alaska. The site is on property owned by Cook Inlet Energy, LLC. The nearest community to the site is Nikiski, approximately 9 kilometers to the east. Cook Inlet lies between the site and Nikiski. Cook Inlet Energy, LLC's West McArthur River Unit Production Facilities are located approximately 8 kilometers north of the site.

Currently, the site is accessible only by helicopter and boat. Because the area is roadless, Cook Inlet is effective as a physical barrier to prevent public access. A second effective physical barrier is the steep, 150- to 200-foot high bluff that must be climbed to access the West Foreland.

Cook Inlet Energy, LLC has constructed a private road from the company's West McArthur River Unit Production Facilities to the site. The public will not be allowed to use this road. As a practical matter, few people are traversing the area that will be impacted by the Kustatan Production Site. The few people that may be in the area would be primarily at the Kustatan Fish Camp. This camp is on property owned by Cook Inlet Energy, LLC. This fish camp has a small boat dock but is officially off-limits to the general public. To be conservative, the fish camp is treated as accessible to the public for the purposes of this plan.

In addition to the physical barrier cited above, public access to the site will be restricted using strategically located signs. These signs will be posted at the fish camp boat dock, the trail leading from the fish camp to the top of the bluff, and at the point the Cook Inlet Energy road enter the site.

Public Access Control Measures

The area surrounding the Kustatan Production site is remote, isolated, and physically prohibitive to travel. Cook Inlet Energy, LLC owns the area within the ambient air quality boundary and has the legal right to restrict public access. No established trails or cabin sites exist within the restricted area. In addition, no public need or use exists for the land within the restricted area. Cook Inlet and high angle bluffs prohibit snowmobile and all-terrain vehicle travel. Walking is difficult, and in places, impossible.

Signs will be posted along the two theoretically potential access routes. These two routes are Cook Inlet Energy, LLC's private access road from the West McArthur River Unit Production Facilities and the walking trail from the Kustatan fish camp to the top of the bluff. Three signs will be posted, one each at the:

- Fish camp boat dock;
- Point the foot trail to the top of the bluff exists the fish camp; and
- Point of entry to the site of the Cook Inlet Energy, LLC road from the West McArthur River Unit Production Facilities.

The sign specifications are:

- Each sign will be 4 feet by 6 feet and will be mounted on posts
- Each sign will be inspected semi-annually and will be repaired or replaced, as necessary.
- Each sign will be free of visible obstructions.
- Each sign will read:

**COOK INLET ENERGY, LLC PETROLEUM EXPLORATION AND PRODUCTION
OPERATIONS**

**INDUSTRIAL AREA
DANGER**

OIL PRODUCTION AND FLARING IN PROGRESS

NO UNAUTHORIZED VISITORS BEYOND THIS POINT

[Minor Permit No. AQ0741MSS02, Section 8, 2/23/2015]
[18 AAC 50.326(a)]

Section 12. 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.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION AIR PERMITS PROGRAM - VISIBLE EMISSIONS OBSERVATION FORM							Page No.			
Stationary Source Name	Type of Emission Unit		Observation Date	Start Time	End Time					
Emission Unit Location			Sec	0	15	30	45			
			Min					Comments		
City	State	Zip	1							
Phone # (Key Contact)	Stationary Source ID Number		2							
Process Equipment	Operating Mode		3							
Control Equipment	Operating Mode		4							
Describe Emission Point/Location			5							
Height above ground level	Height relative to observer	Cinometer Reading	6							
Distance From Observer		Direction From Observer		7						
Start	End	Start	End	8						
Describe Emissions & Color			9							
Start	End		10							
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read			11							
No	Yes		12							
Point in Plume at Which Opacity Was Determined			13							
Describe Plume Background		Background Color		14						
Start	Start		15							
End	End		16							
Sky Conditions:			17							
Start	End		18							
Wind Speed		Wind Direction From		19						
Start	End	Start	End	20						
Ambient Temperature		Wet Bulb Temp	RH percent	21						
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			22							
			23							
			24							
			25							
			26							
			27							
			28							
			29							
			30							
			Additional Information:			31				
						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:		Date					
			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%:			Highest 18-Consecutive -Minute Average Opacity %(engines and turbines only)							
In compliance with six-minute opacity limit? (Yes or No)										
Average Opacity Summary:										
Set Number	Time		Opacity		Comments					
	Start	End	Sum	Average						

Section 13. SO₂ Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO₂ 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%**O**_{2, exhaust}) = 20.9 - _____ = _____

G. = (vol%**O**_{2, exhaust}) ÷ F = _____ ÷ _____ = _____

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

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

SO₂ 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%**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%**O**_{2, exhaust} = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 14. Notification Form³⁰

Kustatan Production Facility

AQ0741TVP04

Stationary Source Name

Air Quality Permit Number.

Cook Inlet Energy 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 COBC³¹, CO³², or Settlement Agreement - Complete Section 2 and Certify

³⁰ Revised as of July 22, 2020.

³¹ Compliance Order By Consent

³² 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.):

- | | |
|--|--|
| <input type="checkbox"/> Start Up/Shut Down | <input type="checkbox"/> Natural Cause (weather/earthquake/flood) |
| <input type="checkbox"/> Control Equipment Failure | <input type="checkbox"/> Scheduled Maintenance/Equipment Adjustments |
| <input type="checkbox"/> Bad fuel/coal/gas | <input type="checkbox"/> Upset Condition |
| <input type="checkbox"/> 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 _____%

Venting _____(gas/scf)

Control Equipment Down

Fugitive Emissions

Emission Limit Exceeded

Marine Vessel Opacity

Flaring

Other: _____

(f) **Corrective Actions:**

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

(g) **Unavoidable Emissions:**

Do you intend to assert that these excess emissions were unavoidable?

YES

NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

YES

NO

Certify Report (go to end of form)

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 71.)*

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.

[18 AAC 50.346(b)(3)]