DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ1201TVP02 2nd Public Notice Date: November 28, 2023

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, Hilcorp Alaska, LLC (HAK), for the operation of the Point Thomson 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. AQ1201MSS04 have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit No. AQ1201TVP01 Rev. 4 expires.

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

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAAQS ..... Alaska Ambient Air Quality Standards
AAC ..... Alaska Administrative Code
ADEC ..... Alaska Department of Environmental Conservation
Administrator ..... EPA and the Department.
AOS ..... Air Online Services
AS ..... Alaska Statutes
ASTM ..... American Society for Testing and Materials
BACT ..... best available control technology
CDX ..... Central Data Exchange
CEDRI ..... Compliance and Emissions Data Reporting Interface
C.F.R. ..... Code of Federal Regulations
CAA or The Act. Clean Air Act
CO ..... carbon monoxide
CO_2e ..... CO_2-equivalent
Department ..... Alaska Department of Environmental Conservation
dscf ..... dry standard cubic foot
EPA ..... US Environmental Protection Agency
EU ..... emissions unit
EU ID ..... emissions unit identification number
GAPCP ..... Good Air Pollution Control Practice
GHG ..... Greenhouse Gas
gr/dscf ..... grain per dry standard cubic foot (1 pound = 7000 grains)
HAK ..... Hilcorp Alaska, LLC
HAPs ..... hazardous air pollutants [as defined in AS 46.14.990]
HNS ..... Hilcorp North Slope, LLC
Hp ..... horsepower
LAER ..... lowest achievable emission rate
MACT ..... maximum achievable control technology [as defined in 40 C.F.R. 63]
MMBtu/hr ..... million British thermal units per hour
MMscf ..... million standard cubic feet
MR&R ..... monitoring, recordkeeping, and reporting
NAICS ..... North American Industrial Classification System
NESHAP ..... National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
NH_3 ..... ammonia
NO_X ..... nitrogen oxides
N_2O ..... Nitrous Oxide
NSPS ..... New Source Performance Standards [as contained in 40 C.F.R. 60]
O_2 ..... oxygen
Pb ..... lead
PM ..... particulate matter
PM_{10} ..... particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$ ..... particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm ..... parts per million
ppmv, ppmvd ..... parts per million by volume on a dry basis
PSD ..... prevention of significant deterioration
PTE ..... potential to emit
SIC. ..... Standard Industrial Classification
SIP ..... State Implementation Plan
SO_2 ..... sulfur dioxide
TPY ..... tons per year
VOC ..... volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
VOL ..... volatile organic liquid [as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol% ..... volume percent
wt% ..... weight percent
$wt\%S_{fuel}$ ..... weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:		Hilcorp Alaska, LLC (HAK) P.O. Box 196601 Anchorage, AK 99519
Stationary Source Name:		Point Thomson Production Facility
Location:		Latitude: 70.172º North; Longitude: 146.256° West
Physical Address:		Point Thomson, North Slope, Alaska
Owner:		Hilcorp North Slope, LLC 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 ExxonMobil Alaska Production Inc. P.O. Box 196601 Anchorage, AK 99519
Operator:		Hilcorp Alaska, LLC
Permittee's Responsible Official:		Luke Saugier, Senior Vice President 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 (907) 777-8300 lsaugier@hilcorp.com
Stationary Source and Building Contact:		Matt Brown, Asset Team Lead 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 (907) 777-8300 mbrown@hilcorp.com
Fee Contact:		Hilcorp Alaska, LLC, Attn. Accounts Payable P.O. Box 61529 Houston, TX 77208 (713) 304-5402
Permit Contact:		Drew Anderson, Environmental Engineer 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 (907) 777-8488 ananderson@hilcorp.com
Process Description:	SIC Code	1311 - Crude Petroleum and Natural Gas
	NAICS Code:	211130 - Natural Gas Extraction

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

Section 2. Emissions Unit Inventory and Description

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

Additionally, a list of nonroad engines authorized to operate at the stationary source is provided in Table B for informational purposes only. No specific MR&R is required for these EUs under this permit.

Table A – Production EU Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel Type	Rating/Size	Installation or Construction Date
96	Hot Oil Unit Heater	SuperTherm SPD-6	ULSD	8.0 MMBtu/hr	2013
101	Fuel Gas Fired Turbine	Solar 70 Taurus	Fuel Gas	7,520 kW	2012
102	Fuel Gas Fired Turbine	Solar 70 Taurus	Fuel Gas	7,520 kW	2012
103	Dual Fuel Fired Turbine	Solar 70 Taurus	Fuel Gas / ULSD	7,520 kW	2012
104	Dual Fuel Fired Turbine	Solar 70 Taurus	Fuel Gas / ULSD	7,520 kW	2012
107	Standby Camp Generator Engine No. 1	Caterpillar 3516	ULSD	2,695 hp	2013
108	Standby Camp Generator Engine No. 2	Caterpillar 3516	ULSD	2,695 hp	2013
109	Standby Camp Generator Engine No. 3	Caterpillar 3516	ULSD	2,695 hp	2013
110	Fine Water Mist Pump Engine No. 1	Cummins QSX15	ULSD	610 hp	2013
111	Fine Water Mist Pump Engine No. 2	Cummins QSX15	ULSD	610 hp	2013
112	HP Flare	KMI 12-4-VS Tip	Gas	130 MMscf/yr	2016
113	LP Flare	AZDAIR AZ-30 Tip	Gas	20 MMscf/yr	2016
114	Airstrip Generator Engine	Caterpillar C15	ULSD	563 hp	2012
115	ACRV Heater No. 1	Modine POR145	ULSD	0.175 MMBtu/hr	2014
116	ACRV Heater No. 2	Modine POR145	ULSD	0.175 MMBtu/hr	2014
130	Ground Heater	Thawzall TCH250	ULSD	0.28 MMBtu/hr	TBD
131	Portable Heater No. 1	TBD	ULSD	1.0 MMBtu/hr	TBD
132	Portable Heater No. 2	TBD	ULSD	1.0 MMBtu/hr	TBD
133	Portable Heater No. 3	TBD	ULSD	1.0 MMBtu/hr	TBD
134	Portable Heater No. 4	TBD	ULSD	1.0 MMBtu/hr	TBD
135	Portable Heater No. 7	TBD	ULSD	1.0 MMBtu/hr	TBD
136	Portable Heater No. 8	TBD	ULSD	1.0 MMBtu/hr	TBD
137	Portable Heater No. 9	TBD	ULSD	1.0 MMBtu/hr	TBD
138	Portable Heater No. 10	TBD	ULSD	1.0 MMBtu/hr	TBD
147	Used Oil-fired Heater	Reznor RA350	Used Oil / ULSD	0.5 MMBtu/hr	TBD
148	Production Support Engine	TBD	ULSD	400 hp	TBD
149	Refrigeration Unit (Reefer) Engine	Kubota V2203L	ULSD	24.8 hp	2014
152	Deicer Heater	TBD	ULSD	1.9 MMBtu/hr	TBD
162	Portable Heater No. 11	TBD	ULSD	1.0 MMBtu/hr	TBD
163	Portable Heater No. 12	TBD	ULSD	1.0 MMBtu/hr	TBD
246	Waste Incinerator	Ketek CY100AD	Trash / ULSD	250 lb/hr	2008

[18 AAC 50.326(a)]
[40 C.F.R. 71.5(c)(3)]
[Table 1, Minor Permit AQ1201MSS04, June 25, 2019]

Table B – Nonroad Engines (NRE): Production EU Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel Type	Rating/Size	Installation or Construction Date
117	Hot Oil Unit Engine	TBD	ULSD	375 hp	TBD
118	Air Compressor Generator Engine	TBD	ULSD	61 hp	TBD
119	Light Plant Generator Engine No. 1	TBD	ULSD	28 hp	TBD
120	Light Plant Generator Engine No. 2	TBD	ULSD	28 hp	TBD
121	Light Plant Generator Engine No. 3	TBD	ULSD	28 hp	TBD
122	Light Plant Generator Engine No. 4	TBD	ULSD	28 hp	TBD
123	Portable Moving Generator Engine No. 1	TBD	ULSD	32 hp	TBD
124	Portable Moving Generator Engine No. 2	TBD	ULSD	32 hp	TBD
125	Portable Moving Generator Engine No. 3	TBD	ULSD	32 hp	TBD
126	Freeze Protection Generator Engine No. 1	TBD	ULSD	99 hp	TBD
127	Freeze Protection Generator Engine No. 2	TBD	ULSD	99 hp	TBD
128	Freeze Protection Generator Engine No. 3	TBD	ULSD	99 hp	TBD
129	Ground Heater Engine	Kubota 482	ULSD	10.9 hp	TBD
139	Portable Heater Engine No. 1	TBD	ULSD	17 hp	TBD
140	Portable Heater Engine No. 2	TBD	ULSD	17 hp	TBD
141	Portable Heater Engine No. 3	TBD	ULSD	17 hp	TBD
142	Portable Heater Engine No. 4	TBD	ULSD	17 hp	TBD
143	Flameless Heater Engine No. 1	TBD	ULSD	17 hp	TBD
144	Flameless Heater Engine No. 2	TBD	ULSD	17 hp	TBD
145	Portable Heater Engine No. 7	TBD	ULSD	17 hp	TBD
146	Portable Heater Engine No. 8	TBD	ULSD	17 hp	TBD
150	Small Deicer Generator Engine	TBD	ULSD	10 hp	TBD
151	Deicer Generator Engine	TBD	ULSD	13 hp	TBD
153	SRT – Spill Response Air Compressor Engine	TBD	ULSD	61 hp	TBD
154	Triplex Pump Engine	Kubota V3800	ULSD	99 hp	TBD
155	Nitrogen Generator Engine No. 1	TBD	ULSD	800 hp	TBD
156	Nitrogen Generator Engine No. 2	TBD	ULSD	10 hp	TBD
157	Pump Engine	TBD	ULSD	175 hp	TBD
158	Portable Heater Engine No. 9	TBD	ULSD	17 hp	TBD
159	Portable Heater Engine No. 10	TBD	ULSD	17 hp	TBD
160	Portable Heater Engine No. 11	TBD	ULSD	17 hp	TBD
161	Portable Heater Engine No. 12	TBD	ULSD	17 hp	TBD
164	Foam Trailer Pump Engine	Kubota D1503	ULSD	25 hp	TBD
165	Foam Trailer Generator Engine	Kubota D902	ULSD	22 hp	TBD
166	ACS Engine No. 1	TBD	ULSD	54 hp	TBD
167	ACS Engine No. 2	TBD	ULSD	16 hp	TBD
168	Emergency Response Trailer Engine	TBD	ULSD	8 hp	TBD
169	Grease Trailer Engine	Kubota D1703-M	ULSD	27 hp	TBD

[18 AAC 50.326(a)]
[40 C.F.R. 71.5(c)(3)]
[Table 2, Minor Permit AQ1201MSS04, June 25, 2019]

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 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs 147-149, record the date of initial startup[1] of each EU after the effective date of this permit.

1.2. For EU IDs 96, 107-111, 114, and 147-149, monitor, record, and report in accordance with Conditions 3 through 5.

1.3. For EU IDs 115, 116, 130-138, 152, 162, and 163, monitoring shall consist of an annual compliance certification under Condition 89 for the visible emissions standard based on reasonable inquiry.

1.4. For EU IDs 103 and 104, burn gas as the primary fuel. Monitoring for these emissions units shall consist of a statement in each operating report under Condition 88 indicating whether each of these emissions units burned gas as the primary fuel during the period covered by the report. If any of these units operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 14 for that emissions unit.

1.5. For EU IDs 101 and 102, burn only gas as fuel. In each operating report under Condition 88 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 87 if any fuel other than gas is burned in any of these emissions units.

1.6. For EU IDs 112 and 113, monitor, record, and report in accordance with Condition 6.

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

2. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust effluent of the incinerator, EU ID 246, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

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

[1] For the purposes of Section 3 of this permit, "*startup"* is defined as the period that begins when fuel is supplied to the unit and ends when the unit reaches stable operations, and not as defined at 18 AAC 50.990(103).

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

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

2.3. If any monitoring under Condition 2.1 was not performed, report under Condition 87 within three days of the date the monitoring was required.

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

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

Liquid Fuel-Burning Equipment (EU IDs 96, 107-111, 114, and 147-149)

3. Visible Emissions Monitoring. When required by Condition 1.2, or in the event of replacement[2] during the permit term, the Permittee shall observe the exhaust of EU IDs 96, 107-111, 114, and 147-149 for visible emissions using the Method 9 Plan under Condition 3.2.

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

3.2. **Method 9 Plan.** For all observations in this plan, observe emissions unit exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.[3]

a. First Method 9 Observation. Except as provided in Condition 3.1, observe the exhausts of EU IDs 96, 107-111, 114, and 147-149 according to the following criteria:

(i) Except as provided in Condition 3.2.a(ii), for any of EU IDs 96, 107-111, 114, and 147-149, observe exhaust within six months after the effective date of this permit; and

(ii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[4] Except as provided in Condition 3.2.e, after the First Method 9 observation:

(A) for EU IDs 96, 107-111, 114, and 147-149, continue with the monitoring schedule of the replaced emissions unit.

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

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

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

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

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

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

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

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

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

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

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

4.1. For all Method 9 observations,

a. the observer shall record the following:

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

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

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

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

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

b. To determine the six-minute average opacity,

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

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

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

(iv) record the average opacity on the sheet.

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

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

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

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

5.1. In the first operating report required in Condition 88 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.

5.2. Include in each operating report required under Condition 88 for the period covered by the report:

a. for all Method 9 Plan observations:

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

(ii) a summary to include:

(A) number of days observations were made;

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

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

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

5.3. Report under Condition 87:

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

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

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

Flares (EU IDs 112 and 113)

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

6.1. Observe flare events[5] on EU IDs 112 and 113 for visible emissions following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations according to the following schedule:

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

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

6.2. Record the following information for observed flare event:

a. the flare EU ID number;

b. results of the Method-9 observations;

c. reason for flaring;

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

e. volume of gas flared.

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

[5] For the 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.

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

6.5. Include the following in the operating report required by Condition 88 for the period covered by the report:

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

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

6.6. Report under Condition 87

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

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

6.7. If no flare events are monitored during a certification period, the Permittee shall certify compliance under Condition 89 with the visible emissions standard in Condition 1 based on reasonable inquiry.

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

Particulate Matter (PM) Emissions Standard

7. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

7.1. For liquid fuel-burning engines and turbines (EU IDs 107-111, 114, 148, and 149) and dual fuel-burning turbines (EU IDs 103 and 104), monitor, record, and report in accordance with Conditions 8 through 10.

7.2. For liquid fuel-burning heaters (EU IDs 96 and 147), monitor, record, and report in accordance with Conditions 11 through 13.

7.3. For EU IDs 115, 116, 130-138, 152, 162, and 163, the Permittee must annually certify compliance under Condition 89 for the PM emissions standard based on reasonable inquiry.

7.4. For dual fuel-fired turbines (EU IDs 103 and 104), the Permittee shall comply with Condition 1.4.

7.5. For fuel gas-fired turbines (EU IDs 101 and 102), the Permittee shall comply with Condition 1.5.

7.6. For flares (EU IDs 112 and 113), the Permittee shall comply with Condition 6.

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

PM MR&R

Liquid Fuel-Burning Engines (EU IDs 107-111, 114, 148, and 149) and Dual Fuel-Burning Turbines (EU IDs 103 and 104)

8. PM Monitoring. The Permittee shall conduct source tests on EU IDs 103 and 104 (when required by Condition 14.3.a), EU IDs 107-111, 114, 148, and 149 to determine the concentration of PM in the exhaust of each emissions unit as follows:

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

8.1. If the result of any Method 9 observation conducted under Condition 3.2 for any of EU IDs 107-111, 114, 148, and 149 is greater than the criteria of Condition 8.2.a or Condition 8.2.b, or if the Method 9 observation conducted under Condition 14.3 for EU IDs 103 and 104 exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10.2. In each operating report under Condition 88, include:

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

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

10.3. Report in accordance with Condition 87:

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

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

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

Liquid Fuel-Burning Boilers and Heaters (EU IDs 96 and 147)

11. PM Monitoring. The Permittee shall conduct source tests on EU IDs 96 and 147 to determine the concentration of PM in the exhaust of each emissions unit as follows:

11.1. If the result of any Method 9 observation conducted under Condition 3.2 for any of EU IDs 96 and 147 results in an 18-minute average opacity greater than 20 percent opacity, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than an 18-minute average opacity of 20 percent; or

b. except as exempted under Condition 11.3, conduct a PM source test according to the requirements in Section 6.

11.2. During each one-hour PM source test run under Condition 11.1, 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.

11.3. The PM source test requirement in Condition 11.1 is waived for an emissions unit if:

a. a source test on that unit has shown compliance with the PM standard during the 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 3.2) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 11.1.

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

12. PM Recordkeeping. The Permittee shall keep records of the results of any source test and visible emissions observations conducted under Condition 11.

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

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

13.1. Notify the Department of any Method 9 observation results that are greater than the threshold of Condition 11.1 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 the threshold in Condition 11.1.

13.2. In each operating report required by Condition 88, include:

a. a summary of the results of any source test and visible emissions observations conducted under Condition 11; and

b. copies of any visible emissions observation result greater than the threshold in Condition 11.1, if they were not already submitted.

13.3. Report in accordance with Condition 87 any time the results of a source test exceed the PM emission standard in Condition 7.

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

Visible Emissions & PM MR&R

Dual Fuel-Burning Equipment (EU IDs 103 and 104)

14. The Permittee shall monitor, record, and report the monthly hours of operation when operating on a back-up liquid fuel.

14.1. For any of EU IDs 103 and 104 that does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual certification under Condition 89 based on reasonable inquiry.

14.2. For any of EU IDs 103 and 104, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 14.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel; or for an emissions unit with intermittent back-up fuel use, during the next scheduled operation on back-up liquid fuel.

14.3. When required to do so by Condition 14.2, observe the 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.

a. If the observation exceeds the standard in Condition 1, monitor as described in Condition 8.

b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year[6].

14.4. Keep records and report in accordance with Conditions 4 and 5 and Conditions 9 and 10.

14.5. Report under Condition 87 if the Permittee fails to comply with Conditions 14.2, 14.3, or 14.4.

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

Sulfur Compound Emissions Standard

15. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 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)]

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

Sulfur Compound MR&R

Fuel Oil[7] (EU IDs 96, 103, 104, 107-111, 114-116, 130-138, 147-149, 152, 162, and 163)

16. For EU IDs 96, 103, 104, 107-111, 114-116, 130-138, 147-149, 152, 162, and 163, to demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel oil burned in the EUs according to Conditions 31 through 32.

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

Fuel Gas (EU IDs 101-104, 112, and 113)

17. For EU IDs 101-104, 112, and 113, to demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel gas burned in the EUs according to Condition 33.

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

Preconstruction Permit[8] Requirements

Alaska Ambient Air Quality Standards (AAAQS) Protection Requirements

18. To protect the annually averaged nitrogen dioxide (NO_2), 24-hour particulate matter with an aerodynamic diameter not exceeding a nominal 10 micrometers (PM_{10}), and annually averaged and 24-hour particulate matter with an aerodynamic diameter not exceeding a nominal 2.5 micrometers ($PM_{2.5}$) AAAQS, the Permittee shall operate the stationary source as described below:

18.1. **Public Access Control Plan.** Comply with the provisions contained in the February 2013 Public Access Control Plan (as provided in Section 13), or a subsequent written version approved by the Department that only contains editorial revisions.

18.2. **Stack Configuration.** Construct and maintain vertical and uncapped exhaust stacks for all EUs listed in Table A except as noted below:

a. EU IDs 96, 107-111, 114-116, 130-138, 147-149, 152, 162, and 163 may have capped or horizontal releases; and

b. this condition does not preclude the use of flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plume.

18.3. **Stack Heights.** Construct and maintain the exhaust stacks for the EUs listed in Table C with release points above the gravel pad surface that equal or exceed the heights indicated in Table C.

[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.

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

Table C – Minimum Stack Heights

EU IDs	Description of Equipment	Minimum Stack Height (m)
101-104	Solar 70 Taurus Turbines	27.4
107-109	Standby Camp Generator Engines Nos. 1 through 3	12.2
110-111	Fine Water Mist Pump Engines Nos. 1 and 2	16.6
112-113	High-Pressure and Low-Pressure Flares	35.6

[Condition 3, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

Limits to Protect the Annual NO_2, Annual $PM_{2.5}$, 24-hour PM_{10}, and 24-hour $PM_{2.5}$ AAAQS

19. The Permittee shall not operate the following list of equipment as described below:

19.1. EU IDs 114-116 outside of the airstrip; and

19.2. EU ID 148 unless it meets the emission standards for 40 C.F.R. 60 Subpart IIII for Tier 4i engines.

20. Monitor, record, and report as follows:

20.1. Record the location of EU IDs 114-116 if operated outside the airstrip.

20.2. Report in the operating report required by Condition 88, for each month covered in the report, a statement certifying that EU IDs 114-116 did not operate outside the airstrip, or include in the operating report the record required in Condition 20.1.

20.3. Maintain engine certifications, performance test results, manufacturer data, or control device vendor data onsite that shows that EU ID 148 complies with the corresponding Tier level emission standards in Condition 19.2.

a. Make the certifications, test results, or data available to Department personnel on request.

b. The records may be kept in electronic format.

20.4. Report as excess emissions and permit deviation as described in Condition 87, if any of Conditions 19.1 and 19.2 were not met.

[Condition 4, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

Limits to Protect the Annual NO_2 and Annual $PM_{2.5}$ AAAQS

21. Out of SoLoNOx Mode Operating Hour Limits, EU IDs 101-104. The Permittee shall limit the combined hours of operation out of SoLoNOx mode[9] per 12 consecutive month period as follows:

[9] The turbines operate in SoLoNOx mode from 100- to 50-percent load, when firing fuel gas; and from 100- to 65- percent load, when firing ULSD. The SoLoNOx disable load is 45-percent for fuel gas and 60-percent for ULSD.

21.1. EU IDs 101-104 to no more than 4,500 hours when firing fuel gas; and

21.2. EU IDs 103 and 104 to no more than 350 hours when firing ULSD.

22. Monitor, record, and report as follows:

22.1. Monitor and record, monthly, the number of hours the following EUs are operated out of SoLoNOx mode:

a. EU IDs 101-104 when firing fuel gas; and

b. EU IDs 103 and 104 when firing ULSD.

22.2. Calculate and record, monthly, the combined hours of operation out of SoLoNOx mode for the previous 12-consecutive-month period for:

a. EU IDs 101-104 when firing fuel gas; and

b. EU IDs 103 and 104 when firing ULSD.

22.3. Report in the operating report required by Condition 88, for each month covered in the report, the combined hours of operation out of SoLoNOx mode for each previous 12-consecutive-month period for:

a. EU IDs 101-104 when firing fuel gas; and

b. EU IDs 103 and 104 when firing ULSD.

22.4. Report as excess emissions and permit deviation as described in Condition 87, whenever the combined hours of operation out of SoLoNOx mode of EU IDs 101-104 exceed any of the limits in Condition 21.1 or 21.2.

[Condition 5, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

23. In SoLoNOx Mode Operating Hour Limit, EU IDs 103 and 104. The Permittee shall limit the combined hours of operation of EU IDs 103 and 104 in SoLoNOx mode when firing ULSD to no more than 4,000 hours[10] per 12-consecutive-month period. Monitor, record, and report as follows:

23.1. Monitor and record, monthly, the combined hours of operation of EU IDs 103 and 104 in SoLoNOx mode when firing ULSD.

23.2. Calculate and record, monthly, the combined hours of operation of EU IDs 103 and 104 in SoLoNOx mode when firing ULSD for the previous 12 consecutive month period.

[10] The hours of operation of EU IDs 103 and 104 when firing ULSD in SoLoNOx mode during federally required performance testing do not count towards the 4,000 hours per 12-consecutive-month period limit.

23.3. Report in the operating report required by Condition 88, for each month covered in the report, the total hours of operation of EU IDs 103 and 104 in SoLoNOx mode when firing ULSD for the previous 12 consecutive month period.

23.4. Report as excess emissions and permit deviation as described in Condition 87 whenever the hours of operation of EU IDs 103 and 104 in SoLoNOx mode when firing ULSD in any 12 consecutive month period exceed the limit in Condition 23.

[Condition 6, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

Owner Requested Limits (ORL) to Avoid PSD Classification for Oxides of Nitrogen (NO_X)

24. Operating Hour Limits, EU IDs 107-109. The Permittee shall limit the combined hours of operation of EU IDs 107-109 to no more than 1,500 hours per 12-consecutive-month period. Monitor, record, and report as follows:

24.1. Maintain and operate the non-resettable hour meter installed on each of EU IDs 107-109.

24.2. Record the startup and shutdown (day and time) or the monthly hour meter reading of each of EU IDs 107-109.

24.3. Calculate and record, monthly, the combined total number of hours of operation of EU IDs 107-109 for:

a. the previous month; and

b. the previous 12 consecutive month period.

24.4. Report in the operating report required by Condition 88, for each month covered in the operating report, the combined total number of hours for each month and each 12-consecutive-month period that EU IDs 107-109 operated as recorded under Condition 24.3.

24.5. Report as excess emissions and permit deviation as described in Condition 87 whenever the combined operating hours for EU IDs 107-109, in any 12-consecutive-month period, exceed the limit in Condition 24, or if any of Conditions 24.1 through 24.4 are not met.

[Condition 7, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

25. Operating Hour Limits EU ID 114. The Permittee shall limit the hours of operation of EU ID 114 to no more than 500 hours per 12 consecutive month period. Monitor, record, and report as follows:

25.1. Calculate and record, monthly, the total number of hours of operation of EU ID 114 for:

a. the previous month; and

b. the previous 12 consecutive month period.

25.2. Report in the operating report required by Condition 88, for each month covered in the operating report, the total number of hours of operation for EU ID 114 for the previous 12 consecutive month period.

25.3. Report as excess emissions and permit deviation as described in Condition 87 whenever the hours of operation for EU ID 114, in any 12 consecutive month period, exceed the limit in Condition 25 or if any of Conditions 25.1 and 25.2 are not met.

[Condition 8, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

26. NO_X Emissions Limit, EU IDs 101-104. The Permittee shall limit the total NO_X emissions from EU IDs 101-104, combined, to no more than 184 tons per 12 consecutive month period. Monitor, record, and report as follows:

26.1. Monitor and record, monthly, the number of hours:

a. EU IDs 101 and 102 operated in SoLoNOx mode;

b. EU IDs 101-104 operated out of SoLoNOx mode when firing fuel gas as required by Condition 22.1.a;

c. EU IDs 103 and 104 operated in SoLoNOx mode when firing fuel gas.

d. EU IDs 103 and 104 operated in SoLoNOx mode when firing ULSD, as required in Condition 23.1; and

e. EU IDs 103 and 104 operated out of SoLoNOx mode when firing ULSD as required in Condition 22.1.b.

26.2. Calculate and record, monthly, the total combined NO_X emissions from EU IDs 101-104 using the information recorded under Condition 26.1 and the appropriate NO_X emission factors from Table D.

26.3. Calculate and record the total combined NO_X emissions from EU IDs 101-104 by the end of each calendar month for the previous 12-consecutive-month period.

26.4. Report in the operating report required by Condition 88, for each month covered in the operating report, the 12-consecutive-month total combined NO_X emissions as recorded under Condition 26.3.

26.5. Report as excess emissions and permit deviation, as described in Condition 87, whenever the limit in Condition 26 is exceeded.

Table D – NO_X Emission Factors for EU IDs 101-104

EUs	Fuel	Operating Mode	Emission Factor Source	Emissions Factor
101 and 102	Fuel Gas	In SoLoNOx mode		4.6 lb/hr
101-104	Fuel Gas	Out of SoLoNOx mode		17.0 lb/hr

103 and 104	Fuel Gas	In SoLoNOx mode	Provided by Permittee and Source Test Verified[11]	6.6 lb/hr
103 and 104	ULSD	In SoLoNOx mode		34.0 lb/hr
103 and 104	ULSD	Out of SoLoNOx mode		26.4 lb/hr

[Condition 9, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

27. Inlet Air Temperature Limit, EU IDs 101-104. The inlet air temperature for each of EU IDs 101-104 shall be 0°F or greater at all times, except during a cold startup of the facility where one turbine will be operated.

27.1. Monitor and record the inlet air temperature hourly.

27.2. Report as excess emissions and permit deviation, as described in Condition 87, whenever the inlet air temperature falls below 0°F, except during a cold startup of the facility.

[Condition 10, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

ORL to Avoid PSD Classification for Carbon Monoxide (CO)

28. CO Emissions Limit, EU IDs 101-104. The Permittee shall limit the total CO emissions from EU IDs 101-104, combined, to no more than 200 tons per 12 consecutive month period. Monitor, record, and report as follows:

28.1. Monitor and record, monthly, the number of hours EU IDs 101-104 operated as required by Condition 26.1.

28.2. Calculate and record, monthly, the total CO emissions from EU IDs 101-104 using the information recorded under Condition 26.1 and the appropriate CO emission factors from Table E.

28.3. Calculate and record the combined CO emissions from EU IDs 101-104 by the end of each calendar month for the previous 12 consecutive month period.

28.4. Report in the operating report required by Condition 88, for each month covered in the operating report, the 12 consecutive month total CO emissions as recorded under Condition 28.3.

28.5. Report as excess emissions and permit deviation as described in Condition 87 whenever the limit in Condition 28 is exceeded or if any of Conditions 28.1 through 28.4 are not met.

Table E – CO Emission Factors for EU IDs 101-104

EU IDs	Fuel	Operating Mode	Emission Factor Source	Emission Factor
101 and 102	Fuel Gas	In SoLoNOx	Provided by Permittee and Source Test Verified[12]	0.52 lb/hr
101 and 102	Fuel Gas	Out of SoLoNOx		51.60 lb/hr

[11] Most recent source test as of permit issuance occurred May 13 – May 14, 2022.

[12] Most recent source test as of permit issuance occurred June 12 – June 15, 2020.

103 and 104	Fuel Gas	In SoLoNOx		1.03 lb/hr
103 and 104	Fuel Gas	Out of SoLoNOx		77.40 lb/hr
103 and 104	ULSD	In SoLoNOx		1.00 lb/hr
103 and 104	ULSD	Out of SoLoNOx		47.25 lb/hr

[Condition 11, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

29. CO Source Test Requirements, EU IDs 101-104. Within the first 18 months of the issuance of this permit, the Permittee shall conduct a source test in accordance with Section 6 of this permit to verify the turbine CO emission rates listed in Table E.

29.1. For EU IDs 101 and 102, conduct the tests on either EU ID 101 or 102 for at least three loads representative of the normal operating range of the EU:

a. in SoLoNOx mode; and

b. out of SoLoNOx mode (the hours out of SoLoNOx mode for performance testing do not count towards the operating limit of Condition 21.1).

29.2. For EU IDs 103 and 104, conduct the tests on either EU ID 103 or 104 for at least three loads representative of the normal operating range of the EU for the following operating modes when burning each fuel type:

a. in SoLoNOx mode (the hours burning ULSD for performance testing do not count towards the operating limit of Condition 23); and

b. out of SoLoNOx mode (the hours out of SoLoNOx mode for performance testing do not count towards the operating limits of Conditions 21.1 and 21.2).

29.3. Report as excess emissions and permit deviation as described in Condition 87 if any of the emission rates determined in the source tests required by Condition 29 are higher than the emission rate for the turbines in Table E and the higher emission rates result in total CO emissions that exceed the limit in Condition 28, or if any of Conditions 29.1 and 29.2 are not met.

[Condition 12, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

30. Temperature Limits at the Outlet of the Oxidation Catalysts, EU IDs 101-104. The Permittee shall monitor and record the daily average temperatures at the outlet of the oxidation catalysts associated with the turbines. Except for a commissioning period of 60 days after achieving the maximum production rate to not exceed 180 days for each turbine, EU IDs 101-104, or during any subsequent cold start of the gas cycling process, or during short periods of load shifting, the Permittee shall maintain the temperature at the outlet of the catalytic bed between 750ºF and 1,100°F while operating in SoLoNOx mode and between 450°F and 1,100°F while operating out of SoLoNOx mode; or temperatures established during compliance source tests.

30.1. Report in the operating report required by Condition 88, for each month covered in the operating report, the daily average outlet temperature of the catalytic bed.

30.2. Report as excess emissions as described in Condition 87 whenever the daily average outlet temperature of the catalytic bed is outside the limits specified in Condition 30, except as provided for during initial commissioning, cold start of the gas cycling process, or during short periods of load shifting.

[Condition 13, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

ORL to Avoid Minor Permit Classification under 18 AAC 50.502(c)(1) for SO_2

31. Diesel Fuel Sulfur Content Limits. The Permittee shall fire only ULSD in the diesel-fired EUs listed in Table A except in the Used Oil-fired Heater (EU ID 147). Monitor, record, and report as follows:

31.1. Obtain and keep certified receipts from fuel suppliers that confirm diesel fuel delivered to the stationary source meets the specifications of ULSD.

31.2. Report in the operating report required by Condition 88 that diesel fuel delivered to the stationary source during the reporting period is ULSD.

31.3. Report in the excess emissions and permit deviation as described in Condition 87 if any diesel fuel delivered to the stationary source during the reporting period did not meet the ULSD specifications or if any of Conditions 31.1 and 31.2 are not met.

[Condition 14, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

32. Used Oil Authorization. The Permittee may burn used oil mixed with ULSD in EU ID 147 as follows:

32.1. Measure the ash content of a representative sample of the used oil using ASTM D482 or an appropriate alternative method adopted in 18 AAC 50.035(c):

a. at least twice within a 12-calendar month period (no more than 7 calendar months following the previous measurement); or

b. if EU ID 147 has been out of operation, within 30-days of startup[13], if it has been more than seven months after the preceding ash content measurement.

32.2. Keep records of ash content measured and the dates of analyses required under Condition 32.1 for five years. The records may be kept in electronic format.

32.3. Comply with the state PM standard listed in Condition 7 by blending the used oil with ULSD using a metering system or other reproducible method accurate to plus or minus five percent at the appropriate ratio from Table F (use the most recent ash content measured under Condition 32.1).

[13] "*Startup*" means, for all sources other than internal combustion engines aboard a marine vessel, the setting into operation of a source for any reason, as defined in 18 AAC 50.990(103).

32.4. Inspect the used oil/ULSD fuel tank at least every five years to ensure that suspended solids are not accumulating in the tank. If suspended solids are present, clean the tank and report the actions taken in the operating report required by Condition 88.

32.5. Record the date, quantity of used oil blended (gallons), and quantity of ULSD blended (gallons) for combustion in EU ID 147.

32.6. Include in the operating report required by Condition 88 the information required under Conditions 32.2 and 32.5 for the period covered by the report.

32.7. Report as excess emissions and permit deviation as described in Condition 87 if the used oil to ULSD blend ratio in Condition 32.3 exceeds the ratios listed in Table F or if Conditions 32.1 through 32.6 are not met.

Table F – Used Oil Blending Ratio

Ash Content (Percent Weight)	Blending Ratio of ULSD to One Part Used Oil
≤0.4	0.8
>0.4 and ≤0.5	1.3
>0.5 and ≤0.6	1.8
>0.6 and ≤0.7	2.2
>0.7 and ≤0.8	2.7
>0.8 and ≤0.9	3.2
>0.9 and ≤1.0	3.7
>1.0 and ≤1.1	4.2
>1.1 and ≤1.2	4.7
>1.2 and ≤1.3	5.2

[Condition 15, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

33. Fuel Gas Hydrogen Sulfide (H_2S) Content Limits. The Permittee shall limit the H_2S content of the fuel gas fired in the EUs, as follows:

33.1. For the turbines (EU IDs 101-104) and the high-pressure flare (EU ID 112), except for pilot and purge gas, limit to no more than 125 parts per million by volume (ppmv); and

33.2. For the low-pressure flare (EU ID 113) and pilot and purge in the higher-pressure flare (EU ID 112), limit to no more than 300 ppmv.

34. Monitor, record, and report as follows:

34.1. Measure the H_2S content of the fuel gas fired in the turbines (EU IDs 101-104), the high-pressure flare (EU ID 112), and in the low-pressure flare (EU ID 113) at least once a calendar month using ASTM D 4810-06, D 4913-89, Gas Processors Association 2377-86, or an appropriate alternative method adopted in 18 AAC 50.035(c).

34.2. Keep records of the H_2S content measured under Condition 34.1 for five years. The records may be kept in electronic format.

34.3. Report in the operating report required by Condition 88, for each month covered by the report, the H_2S content of the fuel gas measured under Condition 34.1.

34.4. Report in the excess emission report as described in Condition 87 if the fuel gas H_2S content measured under Condition 34.1 exceeds the limits in Condition 33 at any time.

[Condition 16, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

ORL to Avoid Regulation Under New Source Performance Standards (NSPS) Subpart Ec

35. Composition of Wastes Burned in Incinerators. Limit the amount of hospital wastes, medical wastes, and infectious wastes combusted in the waste incinerator (EU ID 246) to less than 10 percent by weight of the wastes and fuels combusted on a calendar quarter basis. Monitor, record, and report as follows:

35.1. Keep records on a calendar quarter basis of the weight of hospital waste, medical waste, infectious waste, and all other fuels and wastes combusted in the waste incinerator. The records may be kept in electronic format.

35.2. At the end of each calendar quarter, calculate for that calendar quarter and record the percentage by weight of hospital wastes, medical wastes, and infectious wastes in the total amount of material combusted in the waste incinerator.

35.3. Report in the operating report required by Condition 88, the percent of hospital wastes, medical wastes, and infectious wastes in the total wastes calculated in Condition 35.2 for each calendar quarter in the reporting period.

[Condition 17, Minor Permit AQ1201MSS04, June 25, 2019]
[40 C.F.R. 60.50c(c) & 60.51c "Co-fired combustor", Subpart Ec]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(1), (a)(3) & (c)(6)]

Insignificant Emissions Units

36. 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:

36.1. **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)]

36.2. **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)]

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

[18 AAC 50.055(c)]

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

a. Submit the compliance certifications of Condition 89 based on reasonable inquiry;

b. Comply with the requirements of Condition 70;

c. Report in the operating report required by Condition 88 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 36.1, 36.2, and 36.3.

[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

37. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[14] or existing facility[15] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator[16] 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]

37.1. 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]

37.2. 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]

37.3. a notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies unless that change is specifically exempted under an applicable subpart or in 40 C.F.R. 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include: [17]

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; and

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

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

[14] *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.

[15] *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.

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

[17] 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.

38. 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 101-104.

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

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

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

40. 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 101-104 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 101-104.

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

41. 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 50 and 51 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 101-104 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]

42. 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 45, 50, and 51. 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 IIII[18] – Compression Ignition Internal Combustion Engines (CI ICE), EU IDs 107-111, 114, 148, and 149

43. NSPS Subpart IIII Applicability and General Compliance Requirements. For EU IDs 107-111, 114, 148, and 149 listed in Table A, the Permittee shall comply with the applicable requirements for stationary CI ICE located in remote areas of Alaska[19] whose construction[20] commenced after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006 (for the non-emergency engines, EU IDs 107-109, 114, 148, and 149) and after July 1, 2006 (for the fire pump engines, EU IDs 110 and 111).

43.1. Comply with the applicable provisions of 40 C.F.R. 60 Subpart A as specified in Table 8 to Subpart IIII, and applicable provisions of Subpart IIII as specified in Conditions 43.2 through 48.

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

43.2. Except as permitted in Condition 46.2, operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions, change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 C.F.R. 1068, as they apply.

43.3. Operate and maintain the stationary CI ICE that achieve the emission standards as required in Condition 45 over the entire life of the engine.

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

44. NSPS Subpart IIII Fuel Requirements. The Permittee shall comply with the following:

44.1. For EU IDs 107-111 and 114, the Permittee is exempt from the fuel requirements of 40 C.F.R. 60.4207, per 40 C.F.R. 60.4216(d).

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

[18] The provisions of NSPS Subpart IIII listed in Conditions 43 through 48 are current as amended through March 27, 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.

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

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

[40 C.F.R. 60.4216(d), Subpart IIII]

44.2. For EU IDs 148 and 149, comply with the applicable fuel requirements in 40 C.F.R. 60.4207, as provided under 40 C.F.R. 60.4216 for engines operated in remote areas of Alaska[19], as follows:

a. For CI ICE that use diesel fuel and are not exempt from the requirements of 40 C.F.R. 60.4207 as described under 40 C.F.R. 60.4216(d), use diesel fuel that meets the requirements of 40 C.F.R. 1090.305 for nonroad diesel fuel with the following specifications:

(i) Maximum sulfur content of 15 ppm.

(ii) Diesel fuel must meet one of the following standards:

(A) Minimum cetane index of 40.

(B) Maximum aromatic content of 35 volume percent.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 60.4207(b), 60.4216(d), & 1090.305]

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

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

45.1. Exhaust emissions from EU IDs 107-109, 114, 148, and 149 (stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska) shall not exceed the following applicable exhaust emission standards (Tier 2, Tier 3, Tier 4i, and Tier 4 emission factors) in Table G:

Table G – Emission Standards for Non-Emergency Engines in Remote Areas of Alaska[19] Meeting Emission Standards for Emergency Engines (g/hp-hr)

EU ID	Rating	Model Year/ EPA Tier Std	NO_X + NMHC	CO	PM
107-109	2,695 hp	2013/Tier 2	4.8	2.6	0.15
114	563 hp	2012/Tier 3	3.0	2.6	0.15
148	400 hp	TBD/Tier 4i[1]	3.0	2.6	0.015
149	24.8 hp	2014/Tier 4[2]	5.6	4.9	0.30

Notes:

1. EU ID 148 must comply with the more stringent EPA Tier 4i emission standards per Condition 19.2.
2. EU ID 149 is a 2014 model engine certified by the California Air Resources Board (CARB) to meet the EPA Tier 4 emission standards for CI engines. Additionally, the applicable emission standards, found in Table 2, Subpart IIII, are equivalent to the Tier 4 emission standards for EU ID 149.

[40 C.F.R. 60.4202(a)(1)(ii) & (a)(2), 60.4205(b), 60.4216(c), & Table 2, Subpart IIII]
[Tables 2 & 3, Appendix I to 40 C.F.R. 1039; Table 6 of 40 C.F.R. 1039.102, Subpart B]

45.2. Exhaust emissions from EU IDs 110 and 111 (stationary emergency fire pump CI ICE) shall not exceed the following applicable exhaust emission standards in Table H:

Table H – Emission Standards for Emergency Fire Pump Engines (g/hp-hr)

EU ID	Rating	Model Year/ EPA Tier Std	NO_X + NMHC	CO	PM
110 and 111	610 hp	2013/Tier 3	3.0	2.6	0.15

[40 C.F.R. 60.4205(c) & Table 4, Subpart IIII]

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

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

46.1. for EU IDs 107-111, 114, 148, and 149 demonstrate compliance with the emission standards by purchasing an engine certified to the emission standards in 40 C.F.R. 60.4204(b), 60.4205(b), or 60.4205(c), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition 46.2.

[40 C.F.R. 60.4209 & 60.4211(c), Subpart IIII]

46.2. If the Permittee does not install, configure, operate, and maintain the CI ICE and control devices according to the manufacturer's emission-related written instructions as required in Condition 43.2, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as required by 40 C.F.R. 60.4211(g).

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

46.3. If a performance test set out under 40 C.F.R. 60.4211(g) (see Condition 46.2) is required, exhaust emissions from the stationary CI ICE must not exceed the values in Table G and Table H with the added not-to-exceed (NTE) numerical multipliers, as follows:

a. 1.25 for each pollutant from EU IDs 107-111, 114, and 149;

b. 1.25 for NO_X + NMHC and CO from EU ID 148; and

c. 1.5 for PM from EU ID 148.

[40 C.F.R. 60.4204(d), 60.4205(e), & 60.4212(b) & (c), Subpart IIII]
[40 C.F.R. 1039.101(e)(3), Subpart B]

46.4. For EU IDs 110 and 111, the Permittee shall comply with the following requirements for emergency stationary CI ICE under Subpart IIII:

a. Operate EU IDs 110 and 111 according to the requirements in Conditions 46.4.a(i) through 46.4.a(iii). In order for the engine to be considered an emergency stationary ICE, 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 46.4.a(i) through 46.4.a(iii), is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions 46.4.a(i) through 46.4.a(iii), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(ii) The Permittee may operate EU IDs 110 and 111 for the purposes specified in Conditions 46.4.a(ii)(A) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 46.4.a(iii) counts as part of the 100 hours per calendar year allowed by this Condition 46.4.a(ii).

(A) EU IDs 110 and 111 may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The 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 ICE beyond 100 hours per calendar year.

(iii) EU IDs 110 and 111 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 46.4.a(ii). The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. 60.4209 & 60.4211(f)(1) – (3), Subpart IIII]

46.5. For EU IDs 110 and 111, install a non-resettable hour meter prior to startup of the engine.

a. Starting with the model years in Table 5 to NSPS Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year,

(i) keep records of the time of operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter, and

(ii) the reason the engine was in operation during that time.

[40 C.F.R. 60.4209(a) & 60.4214(b), Subpart IIII]

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

47.1. Upon initial startup of EU IDs 148 and 149 or after the effective date of this permit, whichever is later, provide a copy of the records required by Condition 46.1 in the next operating report.

47.2. Report in accordance with Condition 87 if any of the requirements in Conditions 43 through 48 were not met.

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

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

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(1) & (c)(6)]
[40 C.F.R. 60.4200(a)(4), 60.4208(a) – (i), & 60.4216(e), Subpart IIII]

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

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

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

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

48.3. The requirements of Condition 48 do not apply to stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

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

NSPS Subpart KKKK[21] – Stationary Combustion Turbines, EU IDs 101-104

49. NSPS Subpart KKKK Applicability and General Compliance Requirements. For EU IDs 101-104 listed in Table A, the Permittee shall comply with the applicable requirements for stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005.

[21] The provisions of NSPS Subpart KKKK listed in Conditions 49 through 51 are current as amended through December 7, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

49.1. Comply with the applicable provisions of 40 C.F.R. 60 Subpart A and applicable provisions of Subpart KKKK as specified in Conditions 49.2 through 51.

[18 AAC 50.040(a)(2)(QQ) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R 60.4305(a)]

49.2. Operate and maintain EU IDs 101-104 and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 60.4333(a), Subpart KKKK]

50. NSPS Subpart KKKK NO_X Standard. For EU IDs 101-104:

50.1. The Permittee shall meet the NO_X emission limit of:

a. 150 ppm at 15-percent O_2 or 1,100 ng/J of useful output (8.7 lb/MWh).

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4320(a) & Table 1, Subpart KKKK]

50.2. **Monitoring.** The Permittee shall perform annual performance tests, no more than 14 calendar months following the previous performance test, in accordance with Condition 50.5 to demonstrate continuous compliance:

a. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit in Condition 50.1, the Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test).

b. If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit in Condition 50.1, the Permittee must resume annual performance tests, as described in Condition 50.2.

[40 C.F.R. 60.4340, Subpart KKKK]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]

50.3. **Recordkeeping.** The Permittee shall keep records of all performance tests data in accordance with Condition 83. The records may be kept in electronic format.

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

50.4. **Reporting.** For EU IDs 101-104, the Permittee shall submit a written report of the results of each performance test required under Conditions 50.2 and 50.5 before the close of business on the 60th day following the completion of the performance test and in accordance with Condition 81.

[40 C.F.R. 60.4375(b), Subpart KKKK]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]

50.5. **Performance Tests.** The Permittee shall conduct NO_X performance tests, as provided in Conditions 50.2.a and 50.2.b.

a. The Permittee may use either one of the two methodologies described below in Conditions 50.5.a(i) or 50.5.a(ii) to conduct performance tests. For each test run:

(i) Measure the NO_X concentration (in ppm), using EPA Method 7E or EPA Method 20 in Appendix A of 40 C.F.R. 60. For units complying with the output-based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in Appendix A of 40 C.F.R. 60, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_X emission rate:

$$E = \frac{(1.194 \times 10^{-7}) \times (NO_x)_e \times (Q_{std})}{P}$$

Where:

E	=	NO_X emission rate, in lb/MWh
1.194 X 10^{-7}	=	conversion constant, in lb/(dscf-ppm)
NO_X	=	average NO_X concentration for the run, in ppm
Q_{std}	=	stack gas volumetric flow rate, in dcf/hr
P	=	gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to 40 C.F.R. 60.4350(f)(2); or

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

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

c. Notwithstanding Condition 50.5.b, test at fewer points than are specified in EPA Method 1 or EPA Method 20 in Appendix A 40 C.F.R. 60 if the following conditions are met:

(i) Perform a stratification test for NO_X and diluent pursuant to the procedures specified in Section 6.5.6.1(a) through (e) of Appendix A of 40 C.F.R. 75;

(ii) Once the stratification sampling is completed, use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point NO_X concentrations is within ±10-percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5 ppm or ±0.5-percent carbon dioxide (CO_2) (or O_2) from the mean for all traverse points, then you may use three points (located either 16.7-, 50.0-, and 83.3-percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_X concentration during the stratification test; or

(B) Sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_X concentrations is within ±5-percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3 ppm or ±0.3-percent CO_2 (or O_2) from the mean for all traverse points.

d. The Permittee shall conduct performance tests as follows:

(i) The performance test must be done at any load condition within ±25-percent of 100-percent of peak load.

(ii) The Permittee may perform testing at the highest achievable load point, if at least 75-percent of peak load cannot be achieved in practice; and

(iii) The Permittee must conduct three separate test runs for each performance test at a minimum time of 20 minutes per run.

e. Compliance with the applicable emission limit in Condition 50 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_X emission rate at each tested level meets the applicable emission limit in Condition 50.

f. The inlet air temperature[22] must be greater than 0 °F during performance tests.

[40 C.F.R. 60.4400, Subpart KKKK]

51. NSPS Subpart KKKK SO_2 Standard. The Permittee shall not burn in EU IDs 101-104 any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4330(a)(2), Subpart KKKK]

51.1. **Monitoring.** The Permittee shall demonstrate the fuel does not exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. The owner or operator shall use the following sources of information to make the required demonstration:

[40 C.F.R. 60.4365, Subpart KKKK]

a. **Fuel Oil.** The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content of the fuel oil is 0.05 weight percent (500 ppmw) or less.

[40 C.F.R. 60.4365(a), Subpart KKKK]

b. **Gaseous Fuel.** Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At least once per calendar year, measure total sulfur using ASTM D1072-06, D5504-01, D4468-85, D6667-04, or D3246-96 and measure either gross calorific value using ASTM D1826-94, D3588-98, D4891-89, GPA Standard 2172-96 or 2261-00 or percent methane.

[40 C.F.R. 60.4365(b), Subpart KKKK]

51.2. **Recordkeeping.** Keep records of fuel demonstrations required by Condition 51.1 and in accordance with Condition 83. The records may be kept in electronic format.

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

[22] This performance testing requirement has been modified from "ambient temperature" in 40 C.F.R. 60.4400(b)(6) to "inlet air temperature" based on a December 30, 2015 waiver issued by EPA approving a request to conduct initial and future performance tests at ambient temperatures below 0ºF, provided that when the ambient temperature is below 0ºF, inlet air preheaters are operated so that the turbine inlet air temperature is maintained at a temperature greater than 0ºF. Condition 50.5.f requires that the inlet air temperature of EU IDs 101-104 is maintained at temperatures greater than 0ºF. A copy of the waiver is available at EPA's website at: https://www3.epa.gov/ttnemc01/approalt/alt113.pdf

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

NESHAP Subpart ZZZZ[23]– Stationary RICE, EU IDs 107-111, 114, 148, and 149

52. NESHAP Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for new (EU IDs 107-111, 114, 148, and 149) stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

52.1. For EU IDs 107-111, 114, 148, and 149, new stationary RICE units, the Permittee shall meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII in Conditions 43 through 48. No further requirements apply for such engines under 40 C.F.R. 63.

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

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

Subpart A – General Provisions & Subpart M – Asbestos

53. 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 64 Compliance Assurance Monitoring (CAM) Requirements

54. CAM Requirements. The Permittee shall maintain and comply with the continuous monitoring scheme set out in CAM in Section 14 developed for EU IDs 101-104 to assure compliance with Condition 28.

[18 AAC 50.040(k) & 50.326(j)]
[40 C.F.R. 64.2 – 64.5; 40 C.F.R. 71.6(a)(3) & (c)(6)]

40 C.F.R. 68 Chemical Accident Prevention Provisions

55. The Permittee shall comply with the requirements of 40 C.F.R. 68.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 68; 40 C.F.R. 71.6(a)(3) & (c)(6)]

55.1. **Risk Management Plan (RMP) Requirements.** As part of the Annual Compliance Certification required by Condition 89, the Permittee shall certify compliance with all requirements of 40 C.F.R. 68 Subpart G including the registration and submission of the RMP.

[40 C.F.R. 68.215(a)(2), Subpart H]

[23] The provisions of NESHAP Subpart ZZZZ listed in Condition 52 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 this condition.

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

56. 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]

57. 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]

58. 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

59. 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).

59.1. 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).

59.2. 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).

59.3. 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

60. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

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

61. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

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

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

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

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

64. 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:

64.1. potential to emit of 728.18 TPY; or

64.2. 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]

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

65.1. No later than March 31st of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 64.2. 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/.

65.2. 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.

65.3. 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.

65.4. If no estimate or waiver letter is submitted on or before March 31st of each year, emission fees for the next fiscal year will be based on the potential to emit in Condition 64.1.

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

66. Good Air Pollution Control Practice (GAPCP). The Permittee shall do the following for EU IDs 96, 115, 116, 130-138, 152, 162, 163, used oil-fired heater (EU ID 147), incinerator (EU ID 246), and flares (EU IDs 112 and 113):

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

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

66.3. 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)]

67. 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)]

68. 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.

68.1. 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 68.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

68.2. The Permittee shall report according to Condition 70.3.

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

69. 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)]

70. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.040(j)(4), 50.110, 50.326(j)(3), & 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

70.1. **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 70.

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 70; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 70.

70.2. **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 70; and

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

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

a. with each stationary source operating report under Condition 88, 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 87.

71. Technology-Based Emission Standard. If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or non-routine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard[24] listed in Conditions 45, 50, 51, or 56 (refrigerants), the Permittee shall

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

71.2. report in accordance with Condition 87.1.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

72. 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.

72.1. 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

72.2. include this condition in the annual certification required under Condition 89.

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

Section 6. General Source Testing and Monitoring Requirements

73. Requested Source Tests. In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a) & 50.345(a) & (k)]

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

[18 AAC 50.220(b)]

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

74.2. 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.

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

75.1. 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) & 50.040(a)]
[40 C.F.R. 60]

75.2. 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) & 50.220(c)(1)(B)]
[40 C.F.R. 61]

75.3. 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) & 50.220(c)(1)(C)]
[40 C.F.R. 63]

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

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

75.5. 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) & 50.220(c)(1)(E)]
[40 C.F.R. 60, Appendix A]

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

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

75.7. 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]

76. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emissions unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3) & 50.990(102)]

77. Test Exemption. The Permittee is not required to comply with Conditions 79, 80, and 81 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.2).

[18 AAC 50.345(a)]

78. 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)]

79. Test Plans. Except as provided in Condition 77, 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 73 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)]

80. Test Notification. Except as provided in Condition 77, 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)]

81. Test Reports. Except as provided in Condition 77, 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 84. 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)]

82. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 7 and 36.2, the three-hour average is determined using the average of three one-hour test runs. The source test must account for those emissions caused by soot blowing, grate cleaning, or other routine maintenance activities by ensuring that at least one test run includes the emissions caused by the routine maintenance activity and is conducted under conditions that lead to representative emissions from that activity. The emissions must be quantified using the following equation:

$$E = E_M\left[(A+B)\times\frac{S}{R\times A}\right]+E_{NM}\left[\frac{(R-S)}{R}-\frac{BS}{R\times A}\right]$$

Where:

E = the total particulate matter emissions of the emissions unit in grains per dry standard cubic foot (gr/dscf)

E_M = the particulate matter emissions in gr/dscf measured during the test that included the routine maintenance activity

E_{NM} = the arithmetic average of particulate matter emissions in gr/dscf measured by the test runs that did not include the routine maintenance activity

A = the period of routine maintenance activity occurring during the test run that included routine maintenance activity, expressed to the nearest hundredth of an hour

B = the total period of the test run, less A

R = the maximum period of emissions unit operation per 24 hours, expressed to the nearest hundredth of an hour

S = the maximum period of routine maintenance activity per 24 hours, expressed to the nearest hundredth of an hour

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

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

83.1. copies of all reports and certifications submitted pursuant to this section of the permit; and

83.2. 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) & 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

84. 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.

84.1. 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)]

85. 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.

85.1. 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)]

86. 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)]

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

87.1. **Excess Emissions Reporting.** Except as provided in Condition 70, 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 87.1.d.

d. Report all other excess emissions not described in Conditions 87.1.a, 87.1.b, and 87.1.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 88 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)]

87.2. **Permit Deviations Reporting.** For permit deviations that are not "excess emissions," as defined under 18 AAC 50.990:

a. report according to the required deadline for failure to monitor, as specified in other applicable conditions of this permit (e.g., Conditions 2.3, 5.3.b, 6.6.b, 10.3.b, and 14.5).

b. Report all other permit deviations within 30 days after the end of the month during which the deviation occurred or as part of the next routine operating report in Condition 88 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)]

87.3. **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 12 of this permit. The Permittee must provide all information called for by the form that is used. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions 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), & 50.270(a), (b), & (c)]

88. Operating Reports. During the life of this permit[25], the Permittee shall submit to the Department an operating report in accordance with Conditions 84 and 85 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.

88.1. 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.

88.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 88.1, the Permittee shall identify

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

b. the equipment involved;

[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.

c. the permit condition affected;

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

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

88.3. when excess emissions or permit deviation reports have already been reported under Condition 87 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.

88.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 3.2.e, 8.2, and 11.1 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.

88.5. **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)]

89. 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 85.

89.1. 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.

89.2. **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.

89.3. 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)]

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

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

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

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

90.2. **Triennial inventory.** Every third year by April 30, if the stationary source's potential to emit does not meet any of the emission thresholds in Condition 90.1.

90.3. For reporting under Condition 90.2, the Permittee shall report the annual emissions and the required data elements under Condition 90.4 every third year for the previous calendar year as scheduled by the EPA.[26].

90.4. For each emissions unit and the stationary source, include in the report the required data elements[27] 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.

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

[18 AAC 50.040(j)(4), 50.275, 50.326(j)(3), & 50.346(b)(8)]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1), & Appendix A to 40 C.F.R. 51 Subpart A]

[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 2011, 2014, 2017, 2020, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2020 is due April 30, 2021, triennial emission inventory report for 2023 is due April 30, 2024, etc.).

[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.

91. 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.

91.1. For the purposes of reporting actual or assessable emissions required under Condition 90 and Condition 64.2, 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]

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

92.1. **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 88 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.

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

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

Section 8. Permit Changes and Renewal

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

93.1. 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;

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

93.3. 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

93.4. 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)]

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

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(8)]

95. 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:

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

95.2. 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;

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

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

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

96. 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).

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

96.2. For each such change, the notification required by Condition 96.1 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.

96.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 96.

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

97. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[29] 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) & 50.326(c) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) & 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

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

98.1. included and specifically identified in the permit; or

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

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

99. 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

99.1. an enforcement action;

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

99.3. denial of an operating permit renewal application.

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

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

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

101. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

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

102. 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

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

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

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

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

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

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.

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

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

103.2. 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) & 50.326(j)]
[40 C.F.R. 71.6(f)(3)(i) & (ii)]

104. Table I 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 I 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) & 50.326(j)]
[40 C.F.R. 71.6(f)(1)(ii)]

Table I – Permit Shields Granted

EU	Non-Applicable Requirements	Reason for Non-Applicability
Stationary source-wide	40 C.F.R. 60 Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011 and on or before September 18, 2015 40 C.F.R. 60 Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	HAK indicates that the gas wells at the Point Thomson Production Facility stationary source (Central Pad) will not be hydraulically fractured. 40 C.F.R. 60.5430 and 60.5430a define hydraulic fracturing as *"…the process of directing pressurized fluids containing any combination of water, proppant, and any added chemicals to penetrate tight formations, such as shale or coal formations, that subsequently require high rate, extended flowback to expel fracture fluids and solids during completions.*" HAK describes the Point Thomson Reservoir[30] as a 'gas reservoir' and not a tight formation; they note that gravel or sand pack operations do not meet the definition of hydraulic fracturing.
	40 C.F.R. 60.5365(a) and 60.5365a(a) – Gas well affected facility	40 C.F.R. 60.5365(a) describes an affected facility as 'a single natural gas well.' It does not clearly limit applicability to fractured wells. However, EPA previously confirmed in a response to a comment "…*that Subpart*

[30] See: http://doa.alaska.gov/ogc/annual/current/18_Oil_Pools/Point%20Thomson%20-%20Oil/1_Oil_1.htm

EU	Non-Applicable Requirements	Reason for Non-Applicability
		OOOO does not include standards for oil and conventional natural gas wells that are not hydraulically fractured."[31] 40 C.F.R. 60.5365a(a) describes an affected facility as *'a single well that conducts a well completion operation following hydraulic fracturing or refracturing.'* The wells at Central Pad are not affected facilities under 40 C.F.R. 60.5365(a) and 60.5365a(a) because the wells at Central Pad will not be hydraulically fractured.
Stationary source-wide	40 C.F.R. 60.5365(b) and 60.5365a(b) – Centrifugal compressor affected facility	40 C.F.R. 60.5365(b) describes a centrifugal compressor affected facility as *'a single centrifugal compressor using wet seals that is located between a wellhead and the point of custody transfer to the natural gas transmission and storage segment. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.'* 40 C.F.R. 60.5365a(b) describes a centrifugal compressor affected facility as *'a single centrifugal compressor using wet seals. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.'* HAK indicates that centrifugal compressors will not be installed at Central Pad.
Stationary source-wide	40 C.F.R. 60.5365(c) and 60.5365a(c) – Reciprocating compressor affected facility	40 C.F.R. 60.5365(c) describes a reciprocating compressor affected facility as *'a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.'* 40 C.F.R. 60.5365a(c) describes a reciprocating compressor affected facility as *'a single reciprocating compressor. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.'* Central Pad is a well site as defined by 40 C.F.R. 60.5340 and 60.5340a. It contains two gas injection wells and one liquid waste injection well. Therefore, compressors located at the stationary source are not affected sources. In accordance with 40 C.F.R. 60.5365(c) and 60.5365a(c), a reciprocating compressor located at a well site is not an affected facility under Subparts OOOO and OOOOa.

[31] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 C.F.R. Parts 60 and 63, Response to Public Comments on Proposed Rule August 23, 2011 (76 FR 52738)," page 30, April 17, 2012, available at: https://www.regulations.gov/document?D=EPA-HQ-OAR-2010-0505-4546.

EU	Non-Applicable Requirements	Reason for Non-Applicability
Stationary source-wide	40 C.F.R. 60.5365(d)(1)-(3) and 60.5365a(d)(1) & (2) – Pneumatic controller affected facility	40 C.F.R. 60.5365(d)(1)-(3) and 60.5365a(d)(1) & (2) describe pneumatic controller affected facilities as continuous bleed natural gas-driven pneumatic controllers. HAK indicates that natural gas-driven pneumatic controllers will not be installed at Central Pad.
Stationary source-wide	40 C.F.R. 60.5365(e) and 60.5365a(e) – Storage vessel affected facility	40 C.F.R. 60.5365(e) and 60.5365a(e) describe a storage vessel affected facility as a single storage vessel that is installed or used for the first time (constructed) on or after August 23, 2011 and on or before September 18, 2015, contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and has potential for VOC emissions equal or greater than six TPY. HAK indicates that storage vessels will not be installed at Central Pad. They further indicate that the tanks currently located at the stationary source are used to store drilling fluids injected into the wells. If these tanks are used to store crude oil, condensate, intermediate hydrocarbons, or produced water for more than 180 days, an analysis must be performed to determine if the tanks are storage vessel affected facilities under Subparts OOOO and OOOOa.
Stationary source-wide	40 C.F.R. 60.5365(f) and 60.5365a(f) – Process unit affected facility	A process unit is defined under 40 C.F.R. 60.5430 and 60.5430a as "*…components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquid into natural gas products, or other operations associated with the processing of natural gas products.*" The standards for equipment leaks apply to process units located at an onshore natural gas processing plant. A natural gas processing plant is defined under 40 C.F.R. 60.5430 and 60.5430a as "*…any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.*" EPA stated in the response to public comments addressing the proposed language of Subpart OOOO that "*…the definition [of natural gas processing plant] was intended to exclude facilities that remove liquids from field gas by means other than a forced process (e.g., gravity or natural condensation).*"[32] In accordance with 40 C.F.R. 60.5365(f) and 60.5365a(f), the process units at Central Pad are not affected facilities because they are not located at an onshore natural gas processing plant. In accordance with 40 C.F.R. 60.5401(e) and 60.5401a(e), pumps in light liquid service, valves in gas/vapor and light

[32] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 C.F.R. Parts 60 and 63, Response to Public Comments on Proposed Rule August 23, 2011 (76 FR 52738)," page 160, April 17, 2012, available at**:** https://www.regulations.gov/document?D=EPA-HQ-OAR-2010-0505-4546.

EU	Non-Applicable Requirements	Reason for Non-Applicability
		liquid service, pressure relief devices in gas/vapor service, and connectors in gas/vapor service and in light liquid service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of 40 C.F.R. 60.482-2a(a)(1), 60.482-7a(a), 60.482-11a(a), 60.5401(b)(1), and 60.5401a(b)(1).
Stationary source-wide	40 C.F.R. 60.5365(g) and 60.5365a(g) – Sweetening units	HAK indicates that sweetening units will not be installed at Central Pad.
Stationary source-wide	40 C.F.R. 60.5365(h) – Hydraulically refractured gas well affected facilities. 40 C.F.R. 60. 5365a(h)(1) & (2) – Pneumatic pumps	HAK indicates that the gas wells at Central Pad will not be hydraulically fractured. 40 C.F.R. 60.5430 defines hydraulic refracturing as *"…conducting a subsequent hydraulic fracturing operation at a well that has previously undergone a hydraulic fracturing operation."* HAK describes the Point Thomson Reservoir as a 'gas reservoir' and not a tight formation; they note that gravel or sand pack operations do not meet the definition of hydraulic fracturing. The wells at Central Pad are not affected facilities under 40 C.F.R. 60.5365(h) because they will not conduct well completion operations following hydraulic fracturing or refracturing. HAK indicates that natural gas-driven pneumatic pumps will not be installed on the Central Pad stationary source.
Stationary source-wide	40 C.F.R. 60.5365a(i) – Fugitive emissions components at a well site	Central Pad is a well site, as defined under 40 C.F.R. 60.5430a, and was constructed prior to the applicability date of Subpart OOOOa. For purposes of 40 C.F.R. 60.5397a, a "modification" to a well site occurs when a new well is drilled at an existing well site, a well at an existing well site is hydraulically fractured, or a well at an existing well site is hydraulically refractured. The Central Pad wells were drilled before September 18, 2015, and HAK indicates that no wells at Central Pad will be hydraulically fractured. Therefore, the collection of fugitive emissions components will be exempt from monitoring because the well site was constructed prior to the applicability date of Subpart OOOOa.
Stationary source-wide	40 C.F.R. 60.5365a(j) – Fugitive emissions components at a compressor station	HAK indicates that three compressors, two injection and one flash gas, have been installed at Central Pad. 40 C.F.R. 60.5430a defines a compressor station as *'any permanent combination of one or more compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage. This includes, but is not limited to, gathering and boosting stations and transmission compressor stations. The combination of one or more compressors located at a well site, or located at an onshore natural gas processing plant, is not a compressor station for purposes of §60.5397a.'* Central Pad is a well site under Subpart OOOOa; it is not a compressor station under Subpart OOOO.

EU	Non-Applicable Requirements	Reason for Non-Applicability
Stationary source-wide	40 C.F.R. 1060, Subparts A, B, C, D, E, F, G, H, and I – Control of Evaporative Emissions from New and In-Use Nonroad and Stationary Equipment	The facility will not manufacture engines or fuel systems.
Stationary source-wide	40 C.F.R. 98 Subparts D, E, F, G, H, I, K, L, N, O, P, Q, R, S, T, U, V, X, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH, II, JJ, LL, MM, NN, OO, PP, QQ, RR, SS, TT, and UU – Mandatory Greenhouse Gas Reporting	The subparts do not address the stationary source's line of operations.
Stationary source-wide	40 C.F.R. 1048, Subparts A, B, C, D, E, F, G, and I	The facility will not manufacture engines and does not own or operate Nonroad Spark-Ignition Engines
Stationary source-wide	40 C.F.R. 65 Subparts A, C, D, E, F, and G – Consolidated Federal Air Rule	The facility is not an affected facility within the stationary source. The stationary source is not subject to a subpart of 40 C.F.R. part 60, 61, or 63 that expressly referenced this part for which the owner or operator may choose to comply with the provisions of this part as an alternative to the provisions in the referencing subpart.
EU IDs 96, 115, 116, 130-138, 147, 152, 162, and 163	40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Unit	EUs are process heaters. As defined in 40 C.F.R. 60.41c, steam generating units subject to the requirements of this subpart do not include process heaters.
	40 C.F.R. 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Stationary source is not a major source of hazardous air pollutants.
	40 C.F.R. 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources	EUs are process heaters and not subject to the requirements of this subpart. As defined in 40 C.F.R. 63.11237, boilers subject to the requirements of this subpart do not include process heaters.
EU IDs 101-104	40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines	In accordance with 40 C.F.R. 60.4305(b), stationary combustion turbines regulated under 40 C.F.R. 60 Subpart KKKK are exempt from the requirements of 40 C.F.R. 60 Subpart GG.
	40 C.F.R. 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines 60.4335	The combustion turbines do not use water or steam injection.
	60.4345, 60.4350, 60.4355, 60.4375(a), 60.4405, and 60.4410	The combustion turbines do not have a continuous emission monitoring system.
	60.4390	The combustion turbines are not emergency combustion turbines or research and development turbines.

EU	Non-Applicable Requirements	Reason for Non-Applicability
	40 C.F.R. 63 Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	The stationary source is not a major source of HAPs.
EU IDs 107-111, 114, 148, and 149	40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 60.4201, 60.4203, and 60.4210	The stationary source is not an engine manufacturer.
	60.4215	The emission units are located in Alaska.
EU IDs 107-109, 114, 148, and 149	60.4204(a), (c), 60.4207(d), 60.4209(a), 60.4211(b), (d), (f), 60.4213, 60.4214(a), (b), and (d)	The emission units are diesel-fired, 2007 model year or later nonemergency stationary compression ignition internal combustion engines with a displacement of less than 30 liters per cylinder.
	60.4217	The engines are required by Condition 31 to only combust ULSD.
EU ID 110 and 111	60.4204, 60.4205(a), (b), (d), 60.4207(d), 60.4209(b), 60.4211(d), 60.4213, and 60.4214(a)	The emission units are diesel-fired, 2007 model year or later emergency fire pump compression ignition internal combustion engines with a displacement of less than 30 liters per cylinder.
	60.4214(d)	HAK does not supply power as part of a financial arrangement with another entity, as described in 40 C.F.R. 60.4211(f)(3)(i).
	60.4217	The engines are required by Condition 31 to only combust ULSD.
EU IDs 112 and 113	40 C.F.R. 60.18 – General control device and work practice requirements	The flare is not a control device used to comply with the applicable subparts of 40 C.F.R. 60 and/or 61. The flare is not subject to 40 C.F.R. 60.18.
	40 C.F.R. 63.11 – Control device and work practice requirements	The flare is not a control device used to comply with the applicable subparts of 40 C.F.R. 63. The flare is not subject to 40 C.F.R. 63.11.
EU IDs 117-129, 139-146, 150, 151, 153-161, and 164-169	40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	EUs are nonroad engines and not subject to the requirements of this subpart.
	40 C.F.R. 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	EUs are nonroad engines and not subject to the requirements of this subpart.
EU ID 147	40 C.F.R. 60 Subpart CCCC – Standards of Performance for Commercial and Industrial Solid Waste Incineration Units	EU ID 147 is space heater, not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator, as defined in 40 C.F.R. 60.2265; and therefore, is not subject to the requirements of 40 C.F.R. 60 Subpart CCCC.

EU	Non-Applicable Requirements	Reason for Non-Applicability
EU ID 246	40 C.F.R. 60 Subpart CCCC – Standards of Performance for Commercial and Industrial Solid Waste Incineration Units (CISWI)	The CISWI rules for new incinerators under NSPS Subpart CCCC do not apply to small remote incinerators (SRI) that were constructed before 2010, as explained in the preamble to the 2016 CISWI final rule (*Section V.A. 2000 CISWI New Source Applicability Clarification for Incinerators and Air Curtain Incinerators*). In particular, the following statement clarifies the intent of the rule pertaining to applicability: *"... The 2000 CISWI NSPS are the same as the 2000 EG and limited in applicability to the* ***incinerator subcategory and air curtain incinerators*** *so* ***only these types of CISWI*** *units being regulated in the February 2013 CISWI final rules are affected by this applicability issue..."* 40 C.F.R. Subpart CCCC rules include four subcategories of incineration units: 1) incinerators; 2) small remote incinerators; 3) energy recovery units; and 4) waste burning kilns. EU ID 246 falls under the subcategory of "small remote incinerators" (SRI) as defined in 40 C.F.R. 60.2265 (having 3 tons-per-day capacity and more than 25 miles driving distance to the nearest municipal solid waste landfill) and was constructed in 2008. As such, it does not meet all the subpart applicability criteria under 40 C.F.R. 60.2010 because it does not meet any of the criteria under 40 C.F.R. 60.2015 to be classified as a "new incineration unit."
	40 C.F.R. 60 Subpart DDDD – Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units (CISWI)	40 C.F.R. 60 Subpart DDDD applies to the state to use as guidelines in developing a state plan that implements the CISWI emission guidelines contained in this subpart. It does not apply to owners or operators of CISWI units. Alaska does not currently have an effective state plan approved by EPA; therefore, EU ID 246 could be subject to the federal plan implementing the emission guidelines of 40 C.F.R. 60 Subpart DDDD once that rule is promulgated.
	40 C.F.R. 62 Subpart III – Federal Plan Requirements for CISWI Units that Commenced Construction on or before November 30, 1999	EU ID 246 has not commenced construction, modification, or reconstruction on or before November 30, 1999.
EU ID 246	40 C.F.R. 60 Subpart AAAA – Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	EU ID 246 does not have the rated capacity to combust at least 35 tons per day of municipal solid waste or refuse-derived fuel.

EU	Non-Applicable Requirements	Reason for Non-Applicability
	40 C.F.R. 60 Subpart LLLL – Standards of Performance for New Sewage Sludge Incineration Units	EU ID 246 does not combust sewage sludge and did not commence construction after October 14, 2010 or modification after September 21, 2011.
DT 001, DT 002, DT 006, and DT 007	40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	40 C.F.R. 60 Subpart Kb is not applicable to storage vessels with a capacity greater than or equal to 151 cubic meters (approximately 39,900 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). Distillate No. 2 fuel oil has a vapor pressure of 0.0031 psi (approximately 0.021 kPa) and capacity of each diesel tank is greater than 151 cubic meters. The diesel storage tanks are not subject to this subpart.
Gasoline Tank	40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	NSPS Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (approximately 19,813 gallons) that is used to store volatile organic liquids (VOLs) for which construction, reconstruction, or modification is commenced after July 23, 1984 (40 C.F.R. 60.110b(a)). The gasoline tank has a capacity less than 75 cubic meters and is not subject to this subpart.

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

Section 11. Visible Emissions Forms

VISIBLE EMISSIONS OBSERVATION FORM

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

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

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

Page No.

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

Observation Date	Start Time	End Time

Min \ Sec	0	15	30	45	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Range of Opacity:
Minimum | Maximum

Print Observer's Name
Observer's Signature | Date
Observer's Affiliation:

Certifying Organization:
Certified By: | Date

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. Notification Form[33]

Point Thomson Production Facility — **Stationary Source Name**

AQ1201TVP02 — **Air Quality Permit Number.**

Hilcorp Alaska, LLC (HAK) — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

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

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

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

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

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

☐ Excess Emissions – Complete Section 1 and Certify

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

☐ Deviation from Permit Conditions – Complete Section 2 and Certify

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

☐ Deviation from COBC[34], CO[35], or Settlement Agreement – Complete Section 2 and Certify

[33] Revised as of July 22, 2020.

[34] Compliance Order By Consent

[35] Compliance Order

Section 1. Excess Emissions

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

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

☐Start Up/Shut Down
☐Natural Cause (weather/earthquake/flood)
☐Control Equipment Failure
☐Scheduled Maintenance/Equipment Adjustments
☐Bad fuel/coal/gas
☐Upset Condition
☐Other _____

(c) **Description**

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

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

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

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

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

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

(f) **Corrective Actions:**

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

(g) **Unavoidable Emissions:**

Do you intend to assert that these excess emissions were unavoidable? ☐YES ☐NO

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐YES ☐NO

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

Section 2. Permit Deviations

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

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

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

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

EU ID	EU Name	Permit Condition /Potential Deviation

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

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

(d) **Corrective Actions:**

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

Certification:

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

Printed Name:_____Title_____Date _____

Signature:_____ Phone number_____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 84.)*

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)]

Section 13. Ambient Air Access Control Plan

Point Thomson Production Facility Central Pad

Introduction

Hilcorp Alaska, LLC (HAK) is operating the Point Thomson field located along the Beaufort Sea, on the eastern North Slope of Alaska. The permitted area for Point Thomson is located on lands leased from the State of Alaska. Access to Central Pad is by aircraft, barge, and/or ice roads. The nearest villages to Central Pad are Kaktovik, which is approximately 100 kilometers (km) east and Nuiqsut, which is approximately 180 km west. This plan describes the Public Access Control Plan that will be used to maintain the ambient air quality boundary at the Point Thomson Central Pad.

Site access to Point Thomson is naturally limited due to its remote location and because it will not be connected to other North Slope areas or communities by a permanent road. Some subsistence use of the nearby offshore and onshore area occurs, and local residents may occasionally pass by Point Thomson. HAK understands the need to provide safe havens during emergencies and for those in need of assistance. Access will be provided in these cases as necessary without compromising site control, safety, or the ambient air quality boundary.

Ambient Air

HAK is fully committed to meeting the applicable Alaska Ambient Air Quality Standards (AAAQS) and increments at the ambient air quality boundary of the project. The purposes of this plan are to delineate the area to be protected and controlled for occupational health and safety (within the ambient air quality boundary) from the area that is subject to unrestricted general public access in which the AAAQS and increments are applicable (outside the ambient air quality boundary), and to ensure that measures are in place to restrict public access within the ambient air quality boundary.

EPA defines ambient air as that portion of the atmosphere, external to buildings, to which the general public has access. For the purpose of modeling source emissions, the area to which HAK controls public access is not ambient air. Therefore, the outside of the pad edges represents the ambient air quality boundary. To maintain the ambient air boundary, and still provide for emergency public access, a public access corridor has been established on the south boundary of the Central Pad (Figure 1). For purposes of air quality modeling and impact assessment, this access corridor has been used as the ambient air quality boundary. Dispersion modeling has been conducted and demonstrates modeled compliance with all applicable AAAQS and increments at all points on and outside of the ambient air quality boundary.

Access Control

HAK security procedures will control site access and provide a method for monitoring personnel movements. An adequate number of guards will be provided to ensure 24-hour security coverage 7 days a week. Visitors to the site shall receive a site-specific safety, security, environmental, and health orientation briefing conducted as soon as possible after arriving at the site. This briefing will include a review of ambient air issues.

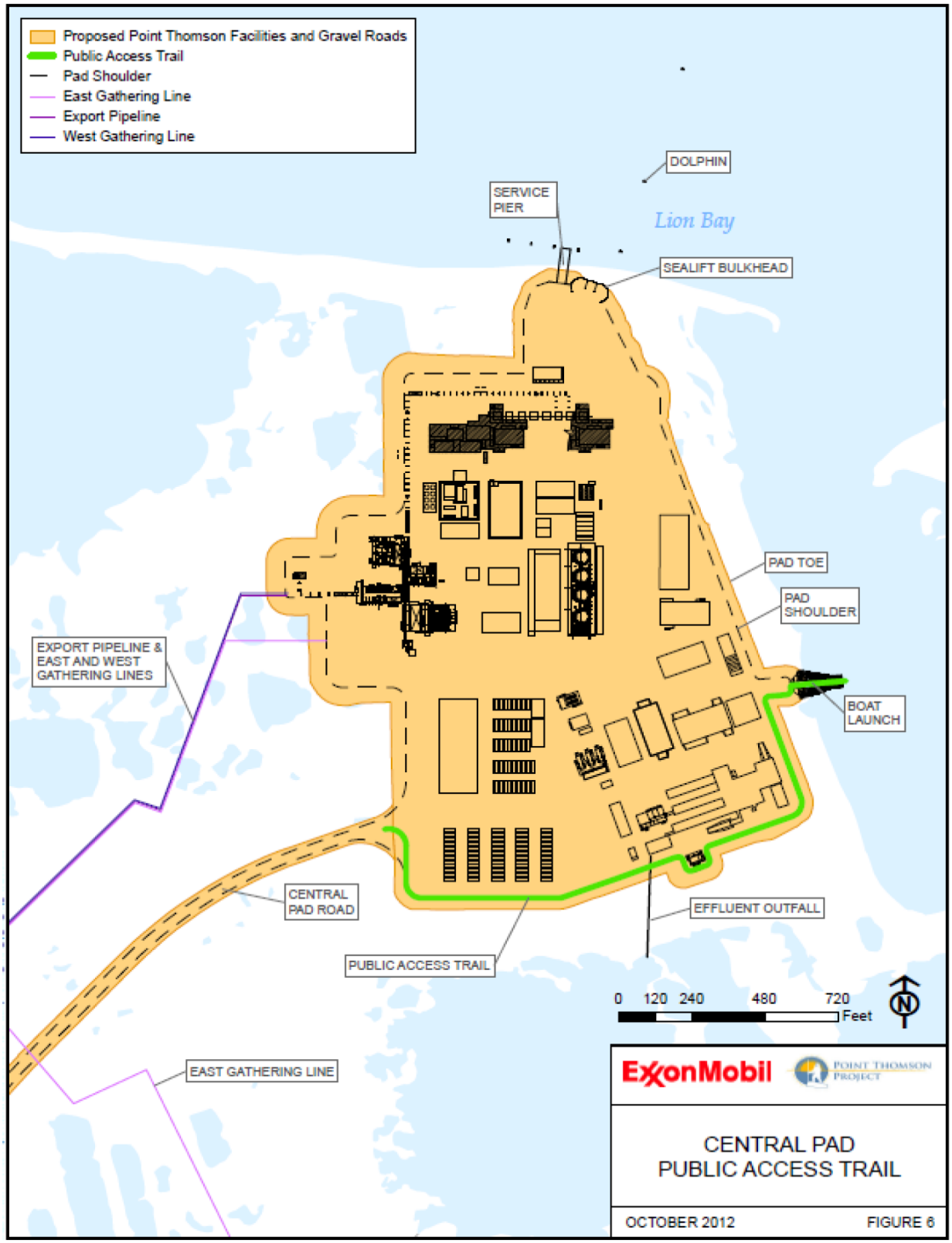
Public access to Central Pad will be controlled by a security office. The land within the ambient air quality boundary encompasses Central Pad. Access to Central Pad is from a road which connects Central Pad to the airstrip. The security office is located on the road at the entrance to Central Pad. The Central Pad berm is approximately 5 feet in height, which creates a physical barrier.

During winter when access to the facilities may be available by ice road, security guards will be placed at the Endicott entrance of the ice road to control access. Security plans include controlling direct site access to the roads, pads, and airstrip; access to ice roads; and the helipad and airstrip.

Operations and maintenance personnel will be on site during all active operating periods to maintain security. A security system will be installed to monitor select areas on Central Pad. Onsite personnel will be responsible for controlling direct site access. Visitors wishing to access the site: should have approval prior to arrival, will be required to sign in upon arrival, and will be required to attend a safety briefing.

The most likely people requiring assistance will be from the village of Kaktovik. HAK maintains onsite subsistence representatives from Kaktovik, who will be trained in the need to maintain an ambient air quality boundary. In addition, HAK employs a Kaktovik Village Liaison, who is based in Kaktovik. The Liaison will work with the community of Kaktovik to understand residents' travel plans and will notify Central Pad Subsistence Representatives and Security when subsistence users or snow machine users plan to be in the Point Thomson Project area. In addition, the issue will be reviewed with the City of Kaktovik's Oil and Gas Liaison.

Figure 1 – Public Access Corridor Established on the South Boundary of the Central Pad



Section 14. Compliance Assurance Monitoring Plan (CAM)

Hilcorp Alaska, LLC
Point Thomson Production Facility
Combustion Turbines

Background

EUs:

Description:	Solar Taurus 70 Combustion Turbines, EU IDs 101 through 104
Control Equipment:	Catalytic Oxidation System, manufactured by BASF
Pollutant:	Carbon Monoxide

Applicable Regulations: The Point Thomson Production Facility is a major Title V source for which an initial Title V operating permit application has been submitted. The four combustion turbines are each equipped with a control device (catalytic oxidation systems) to achieve compliance with the CO emission standard. The pre-controlled potential CO emission rate for each combustion turbine is above the Title V major source threshold of 100 tons per year. As such, the catalytic oxidation systems are subject to the CAM requirements for CO.

Emission Standard: Maintain the temperatures at the outlets of the catalytic beds between 750°F and 1,100°F while operating in SoLoNOx mode and between 450°F and 1,100°F while operating out of SoLoNOx mode; or temperatures established during compliance source tests, except for a commissioning period of 60 days after achieving the maximum production rate to not exceed 180 days for each turbine, EU IDs 101-104, or during any subsequent cold start of the gas cycling process, or during short periods of load shifting.

Monitoring Requirements: Monitor and record the daily average temperature at the outlet of each catalytic oxidation system.

Monitoring Approach

Indicator and Measurement Approach: The outlet temperature of each catalytic oxidation system will be monitored.

Indicator Range: The outlet temperature of the catalytic oxidation system ranges between 750°F and 1,100°F while the turbines operate in SoLoNOx mode. The outlet temperature of the catalytic oxidation system ranges between 450°F and 1,100°F while the turbines operate out of SoLoNOx mode.

Performance Criteria, Data Representativeness: Temperature monitoring devices, which consist of a thermocouple and temperature transmitter, will be located at the outlet of each catalytic oxidation system, specifically the outlets of the catalytic beds.

Performance Criteria, Verification of Operational Status: Operational status shall be demonstrated through operation of the thermocouple and recording of the temperatures.

QA/QC Practices and Criteria: The thermocouples are a type K thermocouple with a range of approximately -328 °F to 2,372 °F. The temperature transmitters are Rosemount 3144P model, with a digital accuracy of 0.14 °F. The temperature transmitters will be calibrated annually per manufacturer's recommendations or HAK's best practices, whichever is more rigorous.

Monitoring Frequency: The outlet temperature of each catalytic oxidation system will be monitored and recorded at least once per one hour period while the associated turbine is being operated.

Data Collection Procedures: Temperatures will be recorded in a computerized data acquisition system. Temperatures will be averaged into a daily average. Periods of commissioning, load shifting between the turbines, and cold start of the gas cycling process will be excluded from the daily average.

Monitoring Approach Justification

Background: The four combustion turbines are each equipped with a catalytic oxidation system to reduce CO and volatile organic compounds (VOC) emissions.

Rationale for Selection of Performance Indicator: Catalytic bed outlet temperature indicates whether the gas flowing into catalyst bed is of sufficient temperature to initiate oxidation.

Rationale for Selection of Indicator Range: The indicator range was selected based on currently established permit requirements. Established permit requirements were based on performance data provided by Solar (combustion turbine manufacturer) and BASF (catalytic oxidation system manufacturer).