Hilcorp Alaska, LLC

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March 6, 2023

Alaska Department of Environmental Conservation
Air Permits Program
ATTN: Application Intake
555 Cordova Street
Anchorage, AK 99501

Subject: Hilcorp Alaska, LLC Point Thomson Production Facility Draft Air Quality Operating Permit AQ1201TVP02 and Statement of Basis – Public Notice Comments

Dear Permit Intake Clerk:

Hilcorp Alaska, LLC (Hilcorp) hereby submits these comments in response to the public notice draft Air Quality Operating Permit No. AQ1201TVP02. These comments are for the draft permit as well as the Statement of Basis (SOB) that accompanies the draft permit, and are being submitted as a package comprised of the following attachments:

- **Attachment I** (*Attachment I_AQ1201TVP02_Public_Notice_Comments_Table.docx*):

  This document contains the bases for requested revisions and comments detailed in the Redline/Strikeout (RLSO) version of the permit and SOB included with this comment package as Attachments II and III.

- **Attachment II** (*Attachment II_RLSO_of_AQ1201TVP02_Draft Permit.docx*):

  This is a version of the draft permit with our proposed revisions represented as RLSO edits. The bases for the revisions are detailed in Attachment I.

- **Attachment III** (*Attachment III_RLSO_of_AQ1201TVP02 Draft SOB.docx*):

  This is a version of the SOB with our proposed revisions represented as RLSO edits. The bases for the revisions are detailed in Attachment I.

We appreciate the opportunity to provide comments on the permit and SOB, as well as the Department's timely processing of this submittal. If you have any questions or require additional information regarding this document, please contact Emilie Niedermeyer at (907) 564-4332 or Emilie.Niedermeyer@hilcorp.com.

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.

Sincerely,

Matt Brown
Asset Team Lead
Hilcorp Alaska, LLC

Electronic cc: AlaskaAirCompliance@hilcorp.com

Enclosures (Electronic):

Attachment I_AQ1201TVP02_Public_Notice_Comments_Table.docx
Attachment II_RLSO_of_AQ1201TVP02 Draft Permit.docx
Attachment III_RLSO_of_AQ1201TVP02 Draft SOB.docx

Attachment I

ATTACHMENT I

Hilcorp Alaska, LLC's (HAK's) requested revisions to the Point Thomson Production Facility Permit No. AQ1201TVP02 and associated Statement of Basis (SOB) for the public comment period that ends March 6, 2023.

Note that the bases presented in this table are intended to describe the edits made in a red-line strike-out (RLSO) version of the Point Thomson Production Facility Permit No. AQ1201TVP02, which is included with the comment package as **Attachment II** (Permit and SOB) and should be referred to in conjunction with this document.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
Permit Cover		
	No Comments	
Abbreviations and Acronyms		
1	Abbreviations and Acronyms	Please amend this section as shown, to remove abbreviations and acronyms not included in the permit.
Section 1 Stationary Source Information		
2	Stationary Source and Building Contact	Please amend this item as shown to revise the Stationary Source and Building Contact.
3	Permit Contact	Please amend this item as shown to revise the Permit Contact.
Section 2 Emissions Unit Inventory and Description		
4	Section 2	Please amend this condition as shown, consistent with language in previous permit AQ1201TVP01, Revision 4.
Section 3 State Requirements		
5	Condition 1.3	Please revise this condition as shown, consistent with language in previous permit AQ1201TVP01, Revision 4, and to reflect that EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). These insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. The permit conditions addressing the insignificant emission units meeting the state emission standards are not emissions unit specific requirements. These permit conditions are covered in Permit Condition 33.
6	Condition 2.3	Please amend this condition consistent with the reporting requirements contained in Condition 85.
7	Condition 3	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
8	Condition 3.1	Please remove this condition because the Smoke/No Smoke Plan will not be used at the Point Thomson Production Facility.
9	Condition 3.2	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
10	Condition 3.3.a	Please remove this condition because the Smoke/No Smoke Plan will not be used at the Point Thomson Production Facility.
11	Condition 3.4	Please remove this condition because the Smoke/No Smoke Plan will not be used at the Point Thomson Production Facility.
12	Condition 3.5	Please remove this condition because the Smoke/No Smoke Plan will not be used at the Point Thomson Production Facility.
13	Condition 4.2	Please remove this condition because the Smoke/No Smoke Plan will not be used at the Point Thomson Production Facility.
14	Condition 4.3	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
15	Condition 5.2.c	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
16	Condition 7.3	Please revise this condition as shown, consistent with language in previous permit AQ1201TVP01, Revision 4, and to reflect that EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). These insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. The permit conditions addressing the insignificant emission units meeting the state emission standards are not emissions unit specific requirements. These permit conditions are covered in Permit Condition 33.
17	Condition 8 Header	Please amend this condition to clarify if the dual-fuel fired turbines (EU IDs 103 and 104) are subject to the requirements of Condition 8. The PM MR&R section header states “Liquid Fuel-Burning Engines and Turbines (EU IDs 107-111, 114, 148, and 149)”. This header indicates the turbines are subject to the requirements of Condition 8, but EUs 103 and 104 specifically have been removed from the header and Condition 8 language. Conversely, EUs 103 and 104 are listed in Condition 8.1.
18	Condition 22.3	Please amend this condition as shown consistent with language in previous permit AQ1201TVP01, Revision 4.
19	Condition 23.1	Please amend this condition as shown consistent with language in previous permit AQ1201TVP01, Revision 4.
20	Condition 33	Please amend this condition as shown. EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). These insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. The permit conditions addressing the insignificant emission units meeting the state emission standards are not emissions unit specific requirements.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
Section 4 Federal Requirements		
21	Condition 35	Please amend this condition as shown to reflect that EUs 101 through 104 are not equipped with a continuous monitoring device. Additionally, associated air pollution control equipment are not subject to 40 CFR 60 Subpart KKKK and therefore not subject to 40 CFR 60 Subpart A.
22	Condition 41	Please amend this condition as shown to correct the spelling of "Permittee".
23	Condition 41.3	Please remove this condition. Hilcorp Alaska, LLC (HAK) does not mix fuels with lubricating oil in engines at Point Thomson. Consistent with AQ1201TVP02 Condition 29, HAK only fires ULSD in the diesel-fired EUs listed in Table A of the permit, with the exception of the Used Oil-fired Heater.
24	Condition 42.3	Please remove this condition to reflect that the smoke standards apply to engine manufacturers and not engine owners or operators.
25	Condition 43.3	Please clarify this condition as shown to reflect that EUs 107 through 111, 114, 148, and 149 are only required to conduct performance tests by 40 CFR 60 Subpart IIII if certain permit conditions are triggered. Please correct the NTE multipliers consistent with the engines listed in Table G and Table H. Per 60.4212(c) exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 must use the NTE multiplier of 1.25. Per 60.4212(b) exhaust emissions form stationary CI ICE that are complying with the emissions standards for new CI engines in 40 CFR 1039 must not exhaust the not-to-exceed standard for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). Per 40 CFR 1039.101(d), the NTE multiplier in these regulations is 1.25, except for if the engine family is certified to a NOx standard less than 2.50 g/kW-hr without using ABT or the engine family is certified to a NOx FEL less than 2.50 g/kW-hr or a NOx + NMHC FEL less than 2.70 g/kW-hr or if the engine family is certified to a PM standard less than 0.07 g/kW-hr without using ABT or the engine family is certified to a PM FEL less than 0.07 g/kW-hr. For these exceptions the NTE multiplier is 1.50.
26	Condition 43.6	Please remove this condition to reflect that HAK does not mix fuels with lubricating oil in engines at Point Thomson, consistent with the comment for Condition 41.3.
27	Condition 44.2	Please remove this condition to reflect that HAK does not mix fuels with lubricating oil in engines at Point Thomson, consistent with the comment for Condition 41.3.
Section 5 General Conditions		
28	Condition 64	Please amend this condition as shown. EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). Condition 64 is the Standard Permit Condition VI that applies to all emission units that are not insignificant, that use a control device, or is subject to an emission standard in 40 CFR 60, 61, or 63.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
Section 6	***General Source Testing and Monitoring Requirements***	
29	Condition 75	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
Section 7	***General Recordkeeping and Reporting Requirements***	
30	Condition 86.4	Please amend this condition as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
Section 8	***Permit Changes and Renewal***	
	No Comments	
Section 9	***Compliance Requirements***	
	No Comments	
Section 10	***Permit As Shield from Inapplicable Requirements***	
	No Comments	
Section 11	***Visible Emissions Forms***	
	No Comments	
Section 12	***Notification Form***	
	No Comments	
Section 13	***Ambient Air Access Control Plan***	
	No Comments	
Section 14	***Compliance Assurance Monitoring Plan (CAM)***	
	No Comments	
Statement of Basis (SOB) for the Terms and Conditions of Permit AQ1201TVP02		
31	Page 2, Stationary Source Identification, Paragraph 1	Please revise the first sentence to provide clarity on the adjustments.
32	Page 3, Emissions, Paragraph 4	Please amend the language as shown to reflect that NOx emission factors are based on vendor data and 2016 and 2018 source test results, consistent with the language included in the Statement of Basis for AQ1201TVP01, Revision 4.
33	Page 9, Non-Applicable Requirements, First Bullet Point	For clarity please remove the 's' from 'Incineration Units' to reflect that there is only one incineration unit.
34	Page 11, Gas Fuel-Burning Equipment, First Sentence	Please amend this information as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.
35	Page 11, Liquid Fuel-Burning Equipment, First Sentence	Please amend this information as shown to remove the reference to the Smoke/No Smoke Plan, which will not be used at the Point Thomson Production Facility.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
36	Page 11, Significant Emission Units under 18 AAC 50.326(d)(1), Last Paragraph	Please amend this language as shown. EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). These insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. The permit conditions addressing the insignificant emission units meeting the state emission standards are not emissions unit specific requirements. These permit conditions are covered in Permit Condition 33.
37	Page 13, Liquid Fuel-Burning Equipment, Fourth Bullet Point	For clarity please add the word 'opacity' to the end of the fourth bullet point.
38	Page 14, Significant Emission Units under 18 AAC 50.326(d)(1), First Paragraph	Please amend this language as shown. EU IDs 115, 116, 130 through 138, 152, 162, and 163 are insignificant emission units per 18 AAC 50.326(e). These insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. The permit conditions addressing the insignificant emission units meeting the state emission standards are not emissions unit specific requirements. These permit conditions are covered in Permit Condition 33.
39	Page 14, Conditions 15 through 17, Factual Basis	Please amend this language as shown to clarify fuel types used at the Point Thomson Production Facility.
40	Page 15, Gaseous Fuels	Please amend these two paragraphs as shown to clarify that fuel sulfur testing is required for fuel gas and not natural gas. Mercaptans are not added to the fuel gas at Point Thomson.
41	Page 15, Conditions 18 through 32, Preconstruction Permit Requirements	Please amend this paragraph as shown to clarify that Best Available Control Technology (BACT) limits and maximum allowable ambient concentration limits are not required by Minor Permit AQ1201MSS03 Revision 5.
42	Page 17, Paragraph 1	Please amend this paragraph as shown to reflect that no affected facility storage tanks currently exist at Point Thomson Production Facility.
43	Page 17, Paragraph 9	Please amend this paragraph as shown to reflect that there are two flares at the Point Thomson Production Facility.
44	Page 17, Paragraph 10	Please amend this paragraph as shown to reflect that certain Subpart A requirements are not applicable to all affected facilities.
45	Page 18, Paragraph 4	Please amend the language as shown to reflect that 40 CFR 60.4201 and 40 CFR 60.4202 are requirements for engine manufacturers and not requirements for the Permittee. Please amend the following language to reflect that the smoke standards under 40 CFR 1039.105 are requirements for the engine manufacturers.
46	Page 20, Paragraphs 1 and 2	Please amend these paragraphs as shown to reflect that the Compliance Assurance Monitoring (CAM) plan is specific to the catalytic oxidizer exhaust temperature.

No.	Location in permit or SOB	Bases of the requests detailed in the Redline/Strikeout (RLSO) version of the permit, included as Attachment II (Permit and SOB).
47	Page 23, Condition 67, Stack Injection, Factual Basis	Please amend this paragraph to include the word “emissions” as shown for clarity.
48	Page 27, Condition 87, Annual Compliance Certification, Factual Basis	Please amend this paragraph as shown to clarify transition periods apply to renewed or revised permits.
49	Page 31, Attachment A	Please remove Attachment A, Figure A – Summary Report – Gaseous and Opacity Excess Emissions Monitoring System Performance. The form is for a continuous monitoring system (CMS). There are no CMS requirements in 40 CFR 60 Subparts IIII and KKKK.

Attachment II

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ1201TVP02

Public Comment Date: January 23, 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, 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

Table of Contents

Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
Administrator .....EPA and the Department.
AOS .....Air Online Services
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT.....best available control technology
~~bHp .....brake horsepower~~
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
C.F.R.....Code of Federal Regulations
CAA or The Act. Clean Air Act
CO.....carbon monoxide
CO_2e.....CO_2-equivalent
Department.....Alaska Department of Environmental Conservation
dscf.....dry standard cubic foot
~~EMAP .....ExxonMobil Alaska Production Inc.~~
EPA.....US Environmental Protection Agency
EU.....emissions unit
EU ID.....emissions unit identification number
~~GACT.....Generally Available Control Technology~~
GAPCP .....Good Air Pollution Control Practice
GHG.....Greenhouse Gas
gr/dscf .....grain per dry standard cubic foot (1 pound = 7000 grains)
~~gph .....gallons per hour~~
HAK.....Hilcorp Alaska, LLC
HAPs.....hazardous air pollutants [as defined in AS 46.14.990]
HNS .....Hilcorp North Slope, LLC
Hp .....horsepower
~~kPa .....kiloPascals~~
LAER.....lowest achievable emission rate
MACT.....maximum achievable control technology [as defined in 40 C.F.R. 63]
MMBtu/hr .....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R.....monitoring, recordkeeping, and reporting
NAICS.....North American Industrial Classification System
NESHAP .....National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
NH_3.....ammonia
NO_x.....nitrogen oxides
N_2O.....Nitrous Oxide
NSPS .....New Source Performance Standards [as contained in 40 C.F.R. 60]
~~O & M .....operation and maintenance~~
O_2.....oxygen
~~PAL .....plantwide applicability limitation~~
Pb.....lead
PM .....particulate matter
PM_{10}.....particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm.....parts per million
ppmv, ppmvd.....parts per million by volume on a dry basis
~~psia .....pounds per square inch (absolute)~~
PSD.....prevention of significant deterioration
PTE.....potential to emit
SIC.....Standard Industrial Classification
SIP .....State Implementation Plan
~~SPC.....Standard Permit Condition~~
SO_2.....sulfur dioxide
~~tph.....tons per hour~~
TPY .....tons per year
VOC .....volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
VOL.....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 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:		~~Emilie Niedermeyer, Environmental Specialist~~ Matt Brown, Asset Team Lead 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 ~~(907) 564-4332~~ (907) 777 -8300 ~~emilie.niedermeyer@hilcorp.com~~ mbrown@hilcorp.com
Fee Contact:		Hilcorp Alaska, LLC, Attn. Accounts Payable P.O. Box 61529 Houston, TX 77208 (713) 304-5402
Permit Contact:		~~Luke Saugier, Senior Vice President~~ Emilie Niedermeyer, Environmental Specialist 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 ~~(907) 777-8300~~ (907) 564-4332 ~~lsaugier@hilcorp.com~~ emilie.niedermeyer@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 and Table B 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. The specific descriptions do not restrict the Permittee from replacing an EU identified in Table A and Table B. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement EU, including any applicable minor construction permit requirement.

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	TBD
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

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)]

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, if actual emissions remain less than the significant thresholds in 18 AAC 50.326(e), monitor, record, and report in accordance with Condition 33. Otherwise, monitor, record, and report in accordance with Conditions 3 through 5. ~~monitoring shall consist of an annual compliance certification under Condition 87 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 86 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 86 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 85 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 85 ~~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 either the Method 9 Plan under Condition 3.3 ~~or the Smoke/No-Smoke Plan under Condition 3.4~~.

~~3.1. The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 3.5.~~

~~3.2.~~3.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule specified in Conditions 3.3.b through 3.3.e ~~or Conditions 3.4.b through 3.5~~ that remains in effect from a previous permit.

~~3.3.~~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 3.2 ~~or Condition 3.5.c(ii)~~, observe the exhausts of EU IDs 96, 107-111, 114, and 147-149 according to the following criteria:

~~(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 3.4.~~

~~(ii)~~(i) Except as provided in Condition 3.3.a(iii), for any of EU IDs 96, 107-111, 114, and 147-149, observe exhaust within six months after the effective date of this permit.

~~(iii)~~(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 3.3.e, after the First Method 9 observation:

[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.

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

~~b.~~a. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 3.3.a, perform observations at least once in each calendar month that the emissions unit operates.

~~c.~~b. Semiannual Method 9 Observations. After at least three monthly observations under Condition 3.3.b unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations:

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

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

~~d.~~c. Annual Method 9 Observations. After at least two semiannual observations under Condition 3.3.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations:

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

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

~~e.~~d. 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 3.3.b, and continue monitoring in accordance with the Method 9 Plan.

~~3.4. **Smoke/No Smoke Plan.** Observe the emissions unit exhaust for the presence or absence of visible emissions, excluding condensed water vapor.~~

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

~~b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 3.4.a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.~~

~~c. Smoke Observed. If visible emissions are observed, comply with Condition 3.5.~~

~~3.5. **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 3.4, then the Permittee shall either begin the Method 9 Plan of Condition 3.3 or~~

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

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

~~c. After completing the actions required under Condition 3.5.a,~~

~~(i) conduct smoke/no smoke observations in accordance with Condition 3.4~~

~~(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 3.4.a is completed; and~~

~~(B) continue as described in Condition 3.4.b; or~~

~~(ii) if the actions taken under Condition 3.5.a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 3.5.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 3.4.a.~~

[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. If using the Smoke/No Smoke Plan of Condition 3.4, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:~~

~~a. the date and time of the observation;~~

~~b. the EU ID of the emissions unit observed;~~

~~c. whether visible emissions are present or absent in the emissions unit exhaust;~~

~~d. a description of the background to the exhaust during the observation;~~

~~e. if the emissions unit starts operation on the day of the observation, the startup time of the emissions unit;~~

~~f. name and title of the person making the observation; and~~

~~g. operating rate (load or fuel consumption rate or best estimate, if unknown).~~

~~4.3.~~4.2. The records required by Conditions 4.1 ~~and 4.2~~ 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 86 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 86 for the period covered by the report:

a. which visible emissions plan of Condition 3 was used for each emissions unit; if more than one plan was used, give the time periods covered by each plan;

b. for all Method 9 Plan observations:

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

(ii) a summary to include:

(A) number of days observations were made;

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

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

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

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

5.3. Report under Condition 85:

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 by Condition 6.2 may be kept in electronic format.

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

6.5. Include the following in the operating report required by Condition 86 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 85

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 87 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)]

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

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 EU IDs 107-111, 114, 148, and 149, monitor, record, and report in accordance with Conditions 8 through 10.

7.2. For 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 if actual emissions remain less than the significant emissions threshold in 18 AAC 50.326(e), monitor, record, and report in accordance with Condition 1.3~~, the Permittee must annually certify compliance under Condition 87 for the PM emissions standard based on reasonable inquiry~~.

7.4. For EU IDs 103 and 104, the Permittee shall comply with Condition 1.4.

7.5. For EU IDs 101 and 102, the Permittee shall comply with Condition 1.5.

7.6. For 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 and Turbines (EU IDs 107-111, 114, 148, and 149)

8. PM Monitoring. The Permittee shall conduct source tests on 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 3.3 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 3.3 results in an 18-minute average opacity greater than

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

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

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 3.3) 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 86, 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 85:

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 3.3 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 3.3) 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 86, 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 85 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 87 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 85 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)]

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. Sulfur Compound Monitoring, Recordkeeping, and Recordkeeping. To demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel oil according to Conditions 29 through 30.

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

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

17. Sulfur Compound Monitoring. To demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel gas according to Condition 31.

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

Preconstruction Permit[8] Requirements

Ambient Air Quality Protection Requirements

[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.
[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.

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) Alaska Ambient Air Quality Standards (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 height indicated in Table C.

Table C – Minimum Stack Heights

EU ID	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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Limits to Protect the Annual NO_2, PM-2.5; and 24-hour PM-10, PM-2.5 Standards

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 emissions standards for 40 C.F.R. 60 Subpart IIII for Tier 4i engines.

Monitor, record, and report as follows:

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

19.4. Report in the operating report required by Condition 86, for each month covered in the report, a statement certifying that EU IDs 114-116 did not operate outside the airstrip.

19.5. 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. Make the certifications, test results, or data available to Department personnel on request. The records may be kept in electronic format.

19.6. Report as excess emissions and permit deviation as described in Condition 85, if Conditions 19.1 and 19.2 were not met.

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

Limits to Protect the Annual NO_2 and PM-2.5 Standards

20. The Permittee shall limit the combined hours of operation out of $SoLoNO_x$ mode[9] per 12 consecutive month period as follows:

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

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

Monitor, record, and report as follows:

20.3. Monitor and record, monthly, the number of hours,

a. EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas; and

b. EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD.

20.4. Calculate and record, monthly, the combined hours of operation out of $SoLoNO_x$ 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.

20.5. Report in the operating report required by Condition 86, for each month covered in the report, the combined hours of operation for each previous 12 consecutive month period for:

a. EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas; and

b. EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD.

20.6. Report as excess emissions and permit deviation as described in Condition 85, whenever the combined operating hours of EU IDs 101-104, out of $SoLoNO_x$ mode, exceed any of the limits in Condition 20.1 or 20.2.

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

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

21. The Permittee shall limit the combined hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD to no more than 4,000 hours[10] per 12 consecutive month period.

Monitor, record, and report as follows:

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

21.2. Calculate and record, monthly, the hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD during the previous 12 consecutive month period.

21.3. Report in the operating report required by Condition 86 for each month covered in the report, the total hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD for the previous 12 consecutive month period.

21.4. Report as excess emissions and permit deviation as described in Condition 85 whenever the hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD in any 12 consecutive month period, exceed the limit in Condition 21.

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

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

22. 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:

22.1. Install, maintain, and operate a non-resettable hour meter on each of EU IDs 107-109;

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

22.3. ~~By the end of each calendar month, calculate~~ 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.

22.4. Report in the operating report required by Condition 86 for each month covered in the operating report the total number of hours for each month and the 12 consecutive month period that EU IDs 107-109 operated as recorded under Condition 22.3; and

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

22.5. Report as excess emissions and permit deviation as described in Condition 85 whenever the combined operating hours for EU IDs 107-109, in any 12 consecutive month period, exceed the limit in Condition 22, or if Conditions 22.1 through 22.4 are not met.

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

23. 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:

23.1. ~~By the end of each calendar month, calculate~~ 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.

23.2. Report in the operating report required by Condition 86 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; and

23.3. Report as excess emissions and permit deviation as described in Condition 85 whenever the hours of operation for EU ID 114, in any 12 consecutive month period, exceed the limit in Condition 23.

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

24. 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:

24.1. Monitor and record, monthly, the number of hours EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas as required by Condition 20.3.a;

24.2. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD as required in Condition 20.3.b;

24.3. Monitor and record, monthly, the number of hours EU IDs 101 and 102 operated in $SoLoNO_x$ mode;

24.4. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated in $SoLoNO_x$ mode when firing fuel gas;

24.5. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated in $SoLoNO_x$ mode when firing ULSD, as required in Condition 21.1;

24.6. Calculate and record, monthly, the total NO_x emissions from EU IDs 101-104 using the information recorded under Conditions 24.1 through 24.5 and the appropriate NO_x emission factors from Table D;

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

24.8. Report in the operating report required by Condition 86, for each month covered in the operating report, the 12 consecutive month total NO_x emissions as recorded under Condition 24.7; and

24.9. Report as excess emissions and permit deviation as described in Condition 85 whenever the limit in Condition 24 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 SoLoNO$_x$ mode	Provided by Permittee and Source Test Verified[11]	4.6 lb/hr
101-104	Fuel Gas	Out of SoLoNO$_x$ mode		17.0 lb/hr
103 and 104	Fuel Gas	In SoLoNO$_x$ mode		6.6 lb/hr
103 and 104	ULSD	In SoLoNO$_x$ mode		34.0 lb/hr
103 and 104	ULSD	Out of SoLoNO$_x$ mode		26.4 lb/hr

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

25. 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.

25.1. Monitor and record the inlet air temperature hourly;

25.2. Report as excess emissions and permit deviation as described in Condition 85, 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORL to Avoid PSD Classification for Carbon Monoxide (CO)

26. 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:

26.1. Monitor and record, monthly, the number of hours EU IDs 101-104 operated as required by Conditions 24.1 through 24.5;

[11] Most recent source test as of permit issuance occurred April 29 – May 4, 2018.

26.2. Calculate and record, monthly, the total CO emissions from EU IDs 101-104 using the information recorded under Conditions 24.1 through 24.5 and the appropriate CO emission factors from Table E;

26.3. 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;

26.4. Report in the operating report required by Condition 86, for each month covered in the operating report, the 12 consecutive month total CO emissions as recorded under Condition 26.3; and

26.5. Report as excess emissions and permit deviation as described in Condition 85 whenever the limit in Condition 26 is exceeded.

Table E – CO Emission Factors for EUs 101-104

EUs	Fuel	Operating Mode	Emission Factor Source	Emission Factor
101 and 102	Fuel Gas	In SoLoNO$_x$	Provided by Permittee and Source Test Verified[12]	0.52 lb/hr
101 and 102	Fuel Gas	Out of SoLoNO$_x$		51.60 lb/hr
103 and 104	Fuel Gas	In SoLoNO$_x$		1.03 lb/hr
103 and 104	Fuel Gas	Out of SoLoNO$_x$		77.40 lb/hr
103 and 104	ULSD	In SoLoNO$_x$		1.00 lb/hr
103 and 104	ULSD	Out of SoLoNO$_x$		47.25 lb/hr

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

27. 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;

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

a. In SoLoNO$_x$ mode; and

b. Out of SoLoNO$_x$ mode (the hours out of SoLoNO$_x$ mode for performance testing do not count towards the operating limit of Condition 20.1).

27.2. 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 SoLoNO$_x$ mode, (the hours burning ULSD for performance testing do not count towards the operating limit of Condition 21); and

b. Out of SoLoNO$_x$ mode (the hours out of SoLoNO$_x$ mode for performance testing do not count towards the operating limit of Conditions 20.1 and 20.2).

27.3. Report as excess emissions as described in Condition 85 if any of the emission rates determined in the source tests required by Condition 27 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 26.

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

28. 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 SoLoNO$_x$ mode and between 450°F and 1,100°F while operating out of SoLoNO$_x$ mode; or temperatures established during compliance source tests.

28.1. Report in the operating report required by Condition 86 for each month covered in the operating report the daily average outlet temperature of the catalytic bed.

28.2. Report as excess emissions as described in Condition 85 whenever the daily average outlet temperature of the catalytic bed is outside the limits specified in Condition 28, 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORL to Avoid Minor Permit Classification for SO_2

29. 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:

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

29.2. Report in the operating report required by Condition 86 that diesel fuel delivered to the stationary source during the reporting period is ULSD.

29.3. Report in the excess emission report as described in Condition 85 if any diesel fuel delivered to the stationary source during the reporting period did not meet the ULSD specifications.

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

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

30.1. Measure the ash content of a representative sample of the used oil at least twice annually (no more than 7 calendar months following the previous measurement), if the heater is being operated and the most recent previous measurement is more than 7 months old, using ASTM D482 or an appropriate alternative method adopted in 18 AAC 50.035(c). Keep records of ash content measured under Condition 30.1 for five years. The records may be kept in electronic format.

30.2. Comply with the State Particulate Matter 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 30.1).

30.3. Inspect the used oil/ULSD fuel tank within five years of the effective date of this permit 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 86.

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

30.5. Include in the operating report required by Condition 86 the information required under Conditions 30.1 and 30.4.

30.6. Report as excess emissions and permit deviation as described in Condition 85 if the used oil to ULSD ratio exceeds the limit in Condition 30.2 or if Conditions 30.1 through 30.5 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

31. Fuel Gas Hydrogen Sulfide (H_2S) Content Limits. The Permittee shall limit the H_2S content of the fuel gas fired in the turbines (EU IDs 101-104) and the high-pressure flare (EU ID 112), except for pilot and purge gas, to no more than 125 parts per million by volume (ppmv) and limit the H_2S content of all fuel gas fired in the low-pressure flare (EU ID 113) and pilot and purge in the higher-pressure flare (EU ID 112) to no more than 300 ppmv.

Monitor, record, and report as follows:

31.1. 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, or Gas Processors Association 2377-86, or an appropriate alternative method adopted in 18 AAC 50.035(c).

31.2. Keep records of the H_2S content measured under Condition 31.1 for five years. The records may be kept in electronic format.

31.3. Report in the operating report required by Condition 86 the H_2S content of the fuel gas measured under Condition 31.1.

31.4. Report in the excess emission report as described in Condition 85 if the fuel gas H_2S content measured under Condition 31.1 exceeds the limits in Condition 31 at any time.

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

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

32. Composition of Wastes Burned in Incinerators. Limit the amount of hospital wastes, medical wastes, and infectious wastes combusted in the waste incinerator (EU 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:

32.1. 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.

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

32.3. Report in the operating report required by Condition 86, the percent of hospital wastes, medical wastes, and infectious wastes in the total wastes calculated in Condition 32.2 for each calendar quarter in the reporting period.

[Condition 17, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Insignificant Emissions Units

33. For EU IDs 115, 116, 130 through 138, 152, 162, and 163, and other 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:

33.1. **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)]

33.2. **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)]

33.3. **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)]

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

a. Submit the compliance certifications of Condition 87 based on reasonable inquiry;

b. Comply with the requirements of Condition 68;

c. Report in the operating report required by Condition 86 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 33.1, 33.2, and 33.3.

[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

34. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[12] or existing facility[13] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator[14] 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]

34.1. 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]

34.2. 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]

34.3. 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: [15]

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

c. productive capacity of the facility before and after the change, and

d. the expected completion date of the change.

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

34.4. 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:

[12] *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.
[13] *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.
[14] The Department defines the "the Administrator" to mean "the EPA and the Department."
[15] 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.

35. 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~~, any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 101-104 is inoperative~~.

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

36. 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]

37. 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]

38. 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 47 and 48 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]

39. 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 42, 47, and 48. 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[16] – Compression Ignition Internal Combustion Engines (CI ICE), EU IDs 107-111, 114, 148, and 149

40. 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[17] whose construction[18] 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).

40.1. 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 40.2 through 45.

[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]

40.2. 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.

40.3. Operate and maintain the stationary CI ICE that achieve the emissions standards as required in Condition 42 over the entire life of the engine.

[16] The provisions of NSPS Subpart IIII listed in Conditions 40 through 45 are current as amended through December 4, 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.

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

[18] 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. 60.4206, 60.4209, & 60.4211(a), Subpart IIII]

41. NSPS Subpart IIII Fuel Requirements. The Permittee~~Permitttee~~ shall comply with the following:

41.1. For EU IDs 107-111 and 114, the Permittee is exempt from the fuel requirements of 40 C.F.R. 60.4207.

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

41.2. 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[17], 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]

~~41.3. For stationary CI ICE subject to Subpart IIII located in remote areas of Alaska[17], the Permittee may use fuels mixed with lubricating oil, in volumes of up to 1.75 percent of the total fuel.~~

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

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

~~[18 AAC 50.040(j)(4) & 50.326(j)]~~
~~[40 C.F.R. 60.4216(f), Subpart IIII]~~

42. 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)]

42.1. 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 emission factors) in Table G:

Table G – Emission Standards for Non-Emergency Engines in Remote Areas of Alaska[17] Meeting Emission Standards for Emergency Engines (g/hp-hr)

EU ID	Rating	Model Year	NO_x + NMHC	CO	PM
107-109	2,695 hp	2013	4.8	2.6	0.15
114	563 hp	2012	3.0	2.6	0.15
148	400 hp	TBD	3.0	2.6	0.15
149	24.8 hp	TBD	5.6	4.9	0.6

[40 C.F.R. 60.4202(a), 60.4205(b), 60.4208(a), & 60.4216(c), Subpart IIII]
[Tables 1 & 2, Appendix I to Part 1039]

Commented [HAK1]: Two thoughts…
1. EU 148/149 could install engines that were previously installed elsewhere
2. EU 149 is installed for the purposes of Subpart IIII, but not installed for the purposes of VE observations. This might be the time to clean this up. Let's discuss.

42.2. 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	NMHC + NO_x	CO	PM
110 and 111	610 hp	2013	3.0	2.6	0.15

[40 C.F.R. 60.4205(c). 60.4202(d), & Table 4, Subpart IIII]

~~42.3. Unless EU IDs 107-111, 114, 148, and 149 are exempt per 40 C.F.R. 1039.105(a), exhaust opacity from each of EU IDs 107-109, 114, 148, and 149 must not exceed~~

~~a. 20 percent during the acceleration mode;~~

~~b. 15 percent during the lugging mode; and~~

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

~~[40 C.F.R. 60.4216(c), 60.4205(b), & 60.4202(a)(1)(i) & (2), Subpart IIII]~~
~~[40 C.F.R. 1039.105, Subpart B]~~

43. 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)]

43.1. 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) or 60.4205(b), 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 43.2.

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

43.2. 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 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]

43.3. ~~When~~ If conducting performance tests is required, exhaust emissions from the stationary CI ICE must not exceed the values in Table G and Table H with the added 1.25 or 1.5 not-to- exceed (NTE) numerical multiplier, as appropriate.

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

43.4. 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 43.4.a(i) through 43.4.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 43.4.a(i) through 43.4.a(iii), is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions 43.4.a(i) through 43.4.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 43.4.a(ii)(A) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 43.4.a(iii) counts as part of the 100 hours per calendar year allowed by this Condition 43.4.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 43.4.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]

43.5. 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]

~~43.6. If using fuels mixed with used lubricating oil as specified in Condition 41.3, comply with the following:~~

~~a. Determine that the used oil to be burned for energy recovery meets the fuel specifications of 40 C.F.R. 279.11 and the sulfur content limit in Condition 41.3.a by performing approved analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.~~

~~b. Keep records of the following:~~

~~(i) copies of analyses of the used oil (or other information used to make the compliance determination in Condition 43.6.a) for three years;~~

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

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

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

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

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

44.1. 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 43.1 in the next operating report.

~~44.2. If using fuels mixed with used lubricating oil, include with the operating report required under Condition 86 a copy of the records required in Condition 43.6.b for the period covered by the report.~~

~~44.3.~~44.2. Report in accordance with Condition 85 if any of the requirements in Conditions 40 through 45 was not met.

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

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

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

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

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

45.2. 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]

45.3. The requirements of Condition 45 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[19] – Stationary Combustion Turbines, EU IDs 101-104

46. 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 (10MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005.

46.1. Comply with the applicable provisions of 40 C.F.R. 60 Subpart A and applicable provisions of Subpart KKKK as specified in Conditions 46.2 through 48.

[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)]

46.2. 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]

47. NSPS Subpart KKKK NO_x Standard. For EU IDs 101-104:

47.1. 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).

[19] The provisions of NSPS Subpart KKKK listed in Conditions 46 through 48 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.

[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]

47.2. **Monitoring.** The Permittee shall perform annual performance tests, no more than 14 calendar months following the previous performance test, in accordance with Condition 47.5 to demonstrate continuous compliance, as follows:

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 47.1, 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 47.1, the Permittee must resume annual performance tests, no more than 14 calendar months following the previous performance test.

[40 C.F.R. 60.4340, Subpart KKKK]

47.3. **Recordkeeping.** The Permittee shall keep records of all performance tests data in accordance with Condition 81. 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) & (c)(6)]

47.4. **Reporting.** For EU IDs 101-104, the Permittee shall submit a written report of the results of each performance test required under Conditions 47.2 and 47.5 before the close of business on the 60th day following the completion of the performance test and in accordance with Condition 79.

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

47.5. **Performance Tests.** The Permittee shall conduct NO_x performance tests, as provided in Conditions 47.2.a and 47.2.b.

a. The Permittee may use either one of the two methodologies described below in Conditions 47.5.a(i) or 47.5.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:

$$EE = \frac{(1.194 \times 10^{-7}) \times (NNOO_{xx})_{ee} \times (QQ_{ssssss})}{PP}$$

Where:

E	=	NO_x emission rate, in lb/MWh
1.194×10^{-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 47.5.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 test, 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 47 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 47.

f. The inlet air temperature[20] must be greater than 0 °F during the performance test.

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

48. 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)]

[20] 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 47.5.f requires that the inlet air temperature of EUs 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. 71.6(a)(1)]
[40 C.F.R. 60.4330(a)(2), Subpart KKKK]

48.1. **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]

48.2. **Recordkeeping.** Keep records of fuel demonstrations required by Condition 48.1, and in accordance with Condition 81. 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)]

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

NESHAP Subpart A – General Provisions

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

49.1. Table 8 to NESHAP Subpart ZZZZ for EU IDs 107-111, 114, 148, and 149 listed in Table A.

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

NESHAP Subpart ZZZZ[21] – Stationary RICE, EU IDs 107-111, 114, 148, and 149

50. NESHAP Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for new[22] (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.

50.1. 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 40 through 45. 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(c), 63.6590(a)(1)(iii), (a)(2)(iii) & (c)(1), & 63.6605(a), Subpart ZZZZ]

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

Subpart A – General Provisions & Subpart M – Asbestos

51. 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

52. 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 26.

[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

53. 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)]

53.1. **Risk Management Plan (RMP) Requirements.** As part of the Annual Compliance Certification required by Condition 87, 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]

[21] The provisions of NESHAP Subpart ZZZZ listed in Condition 50 are current as amended through December 4, 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.

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

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

54. 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]

55. 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]

56. 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

57. 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).

57.1. 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).

57.2. 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).

57.3. 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

58. 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)]

59. 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)]

60. 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)]

61. 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]

62. 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:

62.1. potential to emit of 728 TPY; or

62.2. 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]

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

63.1. 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 62.2. 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/.

63.2. 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.

63.3. 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.

63.4. 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 62.1.

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

64. 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):

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

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

64.3. 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)]

65. 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)]

66. 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.

66.1. 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 66.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

66.2. The Permittee shall report according to Condition 68.3.

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

67. 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)]

68. 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)]

68.1. **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 68.

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 68; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 68.

68.2. **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 68; and

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

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

a. With each stationary source operating report under Condition 86, 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 85.

69. 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[23] listed in Conditions 42, 47, 48, or 54 (refrigerants), the Permittee shall

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

69.2. report in accordance with Condition 85.1.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

70. 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:

[23] 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.

70.1. 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

70.2. Include this condition in the annual certification required under Condition 87.

[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

71. 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)]

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

[18 AAC 50.220(b)]

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

72.2. 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.

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

73.1. 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]

73.2. 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]

73.3. 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]

73.4. 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)]

73.5. 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]

73.6. 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]

73.7. 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]

74. 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)]

75. Test Exemption. The Permittee is not required to comply with Conditions 77, 78, and 79 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.3) ~~or Smoke/No Smoke Plan (Condition 3.4)~~.

[18 AAC 50.345(a)]

76. 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)]

77. Test Plans. Except as provided in Condition 75, 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 71 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)]

78. Test Notification. Except as provided in Condition 75, 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)]

79. Test Reports. Except as provided in Condition 75, 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 82. 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)]

80. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 7 and 33.2, 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:

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

Commented [HAK2]: This equation looks like there is a formatting issue. Is the equation okay in the PDF doc?

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

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

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

81.2. 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

82. 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.

82.1. 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)]

83. 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.

83.1. 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)]

84. 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)]

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

85.1. **Excess Emissions Reporting.** Except as provided in Condition 68, 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 85.1.d.

d. Report all other excess emissions not described in Conditions 85.1.a, 85.1.b, and 85.1.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 86 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)]

85.2. **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 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 86 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)]

85.3. **Notification Form.** When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at the Division of Air Quality's Air Online Services (AOS) system webpage http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option, or, if the Permittee prefers, the form contained in Section 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)]

86. Operating Reports. During the life of this permit[24], the Permittee shall submit to the Department an operating report in accordance with Conditions 82 and 83 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.

86.1. 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.

86.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 86.1, the Permittee shall identify

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

b. the equipment involved;

c. the permit condition affected;

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

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

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

86.3. When excess emissions or permit deviation reports have already been reported under Condition 85 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.

86.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 3.3.e, ~~3.4.c,~~ 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.

86.5. **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)]

87. 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 83.

87.1. 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.

87.2. **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.

87.3. 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)]

88. 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:

88.1. **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.

88.2. **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 88.1.

88.3. For reporting under Condition 88.2, the Permittee shall report the annual emissions and the required data elements under Condition 88.4 every third year for the previous calendar year as scheduled by the EPA.[25].

88.4. For each emissions unit and the stationary source, include in the report the required data elements[26] 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.

88.5. 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]

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

[25] 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.).

[26] 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.

89.1. **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 86 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.

89.2. **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

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

90.1. 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;

90.2. 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;

90.3. 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

90.4. 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)]

91. 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)]

92. 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:

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

92.2. 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;

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

92.4. 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)]

93. Operational Flexibility. The Permittee may make CAA Section 502(b)(10)[27] 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).

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

93.2. For each such change, the notification required by Condition 93.1 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.

93.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 93.

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

94. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[28] 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)]

[27] 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.

[28] 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

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

95.1. included and specifically identified in the permit; or

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

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

96. 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

96.1. an enforcement action;

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

96.3. denial of an operating permit renewal application.

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

97. 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)]

98. 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)]

99. 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

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

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

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

99.4. 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.

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

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

100.2. 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)]

101. 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 CFR 60 Subparts D, Da, Db, Dc, E, Ea, Eb, Ec, F, G, Ga, H, I, J, Ja, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, VVa, WW, XX, AAA, BBB, DDD, FFF, GGG, GGGa, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, AAAA, CCCC, DDDD, EEEE, FFFF, LLLL, MMMM, QQQQ, TTTT, and UUUU	The facility is not an affected stationary source, operation, or industry.

Stationary source-wide	40 CFR 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. 60.5365(a) Gas well affected facility	HAK indicates that the gas wells at the Point Thomson Production Facility stationary source (Central Pad) will not be hydraulically fractured. 40 CFR 60.5430 defines 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[29] 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 CFR 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 OOOO does not include standards for oil and conventional natural gas wells that are not hydraulically fractured.***" [30] The gas wells at Central Pad are not affected facilities under 40 C.F.R. 60.5365(a) and are therefore not subject to the applicable provisions of 40 C.F.R. 60 Subpart OOOO.
Stationary source-wide	40 C.F.R. 60.5365(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.'* HAK indicates that centrifugal compressors will not be installed at Central Pad.

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

[30] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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.

Stationary source-wide	40 C.F.R. 60.5365(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.'* The definitions that apply to Subpart OOOO are listed under 40 C.F.R. 60.5340. The following subset to those definitions is relevant to this discussion: Compressor station: *'any permanent combination of one or more compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.'* Custody transfer: *'the transfer of natural gas after processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation.'* Field gas gathering: *'the system used transport field gas from a field to the main pipeline in the area.'* Natural gas processing plant: *'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.'* Well: *'an oil or gas well, a hole drilled for the purpose of producing oil or gas, or a well into which fluids are injected.'* Wellhead: *'the piping, casing, tubing and connected valves protruding above the earth's surface for an oil and/or natural gas well. The wellhead ends where the flow line connects to a wellhead valve.'* Well site: *'one or more areas that are directly disturbed during the drilling and subsequent operation of, or affected by, production facilities directly associated with any oil well, gas well, or injection well and its associated well pad.'* Central Pad is a well site as defined by 40 C.F.R. 60.5340. In accordance with 40 C.F.R. 60.5365(c), a reciprocating compressor located at a well site is not an affected facility under Subpart OOOO.

Stationary source-wide	40 C.F.R. 60.5365(d)(1) - (3) Pneumatic controllers	40 C.F.R. 60.5365(d)(1) - (3) 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) Storage vessels	40 C.F.R. 60.5365(e) describes 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.
Stationary source-wide	40 C.F.R. 60.5365(f) Process units	A process unit is defined under 40 C.F.R. 60.5430 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 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).*" [31] In accordance with 40 C.F.R. 60.5365(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), pumps in light liquid service, valves in gas/vapor and light 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), and 60.5401(b)(1) per 40 CFR 60.5401(e).
Stationary source-wide	40 C.F.R. 60.5365(g) Sweetening units	HAK indicates that sweetening units will not be installed at Central Pad.

[31] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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

Stationary source-wide	40 C.F.R. 60.5365(h) Hydraulically refractured gas well affected facilities.	HAK indicates that the gas wells at Central Pad will not be hydraulically fractured. 40 CFR 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 CFR 60.5365(h) because they will not conduct well completion operations following hydraulic fracturing or refracturing.
Stationary source-wide	40 CFR 60 Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015. 40 C.F.R. 60.5365a(a) Well affected facility	HAK indicates that the wells at Central Pad will not be hydraulically fractured. 40 CFR 60.5430a defines 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 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 CFR 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 CFR 60.5365a(a) because they will not conduct well completion operations following hydraulic fracturing or refracturing.
Stationary source-wide	40 C.F.R. 60.5365a(b) Centrifugal compressor affected facility	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 compressor will not be installed at Central Pad.

Stationary source-wide	40 C.F.R. 60.5365a(c) Reciprocating compressors	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.* The Central Pad is a well site as defined under 40 CFR 60 Subpart OOOOa. It contains two gas injection wells and one liquid waste injection well. Therefore, compressors located at the stationary source are not affected sources.
Stationary source-wide	40 C.F.R. 60.5365a(d)(1) & (2) Pneumatic controllers	HAK indicates that natural gas-driven pneumatic controllers will not be installed at the Central Pad.
Stationary source-wide	40 C.F.R. 60.5365a(e) Storage vessels	Under 40 CFR 60 Subpart OOOOa, storage vessel affected facilities are storage vessels that are installed or used for the first time (constructed) on or after September 18, 2015, contain an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and have potential for VOC emissions equal or greater than six tpy. HAK indicates that no tanks at Central Pad are storage vessel affected facilities under Subpart OOOOa. 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 Subpart OOOOa.

Stationary source-wide	40 C.F.R. 60.5365a(f) Process units	A process unit is defined under 40 CFR 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. 60.5430a 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. 60.5365a(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. 60.5401a(e), pumps in light liquid service, valves in gas/vapor and light 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), and 60.5401a(b)(1) per 40 CFR 60.5401a(e).
Stationary source-wide	40 C.F.R. 60.5365a(g) Sweetening units	HAK indicates that sweetening units will not be installed at Central Pad.
Stationary source-wide	40 C.F.R. 60.5365a(h)(1) & (2) Pneumatic pumps	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	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 CFR 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.

[32] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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

Stationary source-wide	40 C.F.R. 60.5365a(j) Fugitive emissions	HAK indicates that three compressors, two injection and one flash gas, will be installed at Central Pad. 40 CFR 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.
Stationary source-wide	40 CFR 61 Subpart B, C, D, E, F, H, I, J, K, L, M, N, O, P, Q, R, T, V, W, Y, BB, and FF	No affected facility within the stationary source.
Stationary source-wide	40 CFR 63 Subpart B, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, RRRRR, SSSSS, TTTTT, UUUUU, WWWWW, YYYYY, ZZZZZ, BBBBBB, CCCCCC, DDDDDD, EEEEEE, FFFFFF, GGGGGG, HHHHHH, JJJJJJ, LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP, QQQQQQ, RRRRRR, SSSSSS, TTTTTT, VVVVVV, WWWWWW, XXXXXX, YYYYYY, ZZZZZZ, AAAAAAA, BBBBBBB, CCCCCCC, DDDDDDD, EEEEEEE, and HHHHHHH	The facility does not contain an affected stationary source, operation or industry.
	40 CFR 65, Subparts A, C, D, E F, and G	The facility is not an affected facility within the stationary source.

	40 CFR 90, Subparts A, B, C, D, E, F, G, H, I, J, K, L, and M	The facility will not manufacture or import engines.
	40 CFR 91, Subparts A, B, C, D, E, F, G, H, I, J, K, L, M, and N	The facility will not manufacture or import engines.
	40 CFR 96, Subparts A, B, C, D, E, F, G, H, I, AA, BB, CC, EE, FF, GG, HH, II, AAA, BBB, CCC, FFF, GGG, HHH, III, AAAA, BBBB, CCCC, EEEE, FFFF, GGGG, HHHH, and IIII	Alaska does not have or participate in a NO_x or SO_2 Trading Program.
	40 CFR 97, Subparts A, B, C, D, E, F, G, H, I, J, AA, BB, CC, EE, FF, GG, HH, II, AAA, BBB, CCC, FFF, GGG, HHH, III, AAAA, BBBB, CCCC, EEEE, FFFF, GGGG, HHH, IIII, AAAAA, BBBBB, CCCCC, and DDDDD	Alaska does not have or participate in a NO_x or SO_2 Trading Program.
	40 CFR 98, Subparts C, 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	The facility is not an affected facility within the stationary source.
	40 CFR 1036, Subparts A, B, C, E, F, G, H, and I	The facility will not manufacture or import engines.
	40 CFR 1037, Subparts A, B, C, E, F, G, H, and I	The facility will not manufacture or import engines.
	40 CFR 1043	The facility is not an affected stationary source, operation or industry.
	40 CFR 1045, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or fuel systems.
	40 CFR 1048, Subparts A, B, C, D, E, F, G, and I	The facility will not manufacture engines.
	40 CFR 1051, Subparts A, B, C, D, F, G, H, and I	The facility will not manufacture engines.
	40 CFR 1054, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or engine components.
	40 CFR 1060, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or fuel systems.
	40 CFR 1065, Subparts A, B, C, D, E, F, G, H, I, J, K, and L	The facility is not an affected stationary source, operation or industry.
	40 CFR 1066, Subparts A, B, C, D, E, F, G, H, I, J, and K	The facility is not an affected stationary source, operation or industry.

[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.

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AIR PERMITS PROGRAM - VISIBLE EMISSIONS OBSERVATION FORM

Page No.

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. Notification Form[33]

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

AQ1201TVP02 — **Air Quality Permit Number.**

Hilcorp Alaska, LLC — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

Date: __/__/__ Time: __:__

When did the event/deviation occur?

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

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

What was the duration of the event/deviation? __:__ (hrs:min) or ____days

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

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

☐ Excess Emissions - Complete Section 1 and Certify
Note: All "excess emissions" are also "permit deviations." However, use only Section 1 for events that involve excess emissions.

☐ Deviation from Permit Conditions - Complete Section 2 and Certify
Note: Use only Section 2 for permit deviations that do not involve excess emissions.

☐ Deviation from COBC[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 82.)*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

If submitted online, report must be submitted by an authorized E-signer for the stationary source (according to Condition 82).

[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 review of ambient air issues.

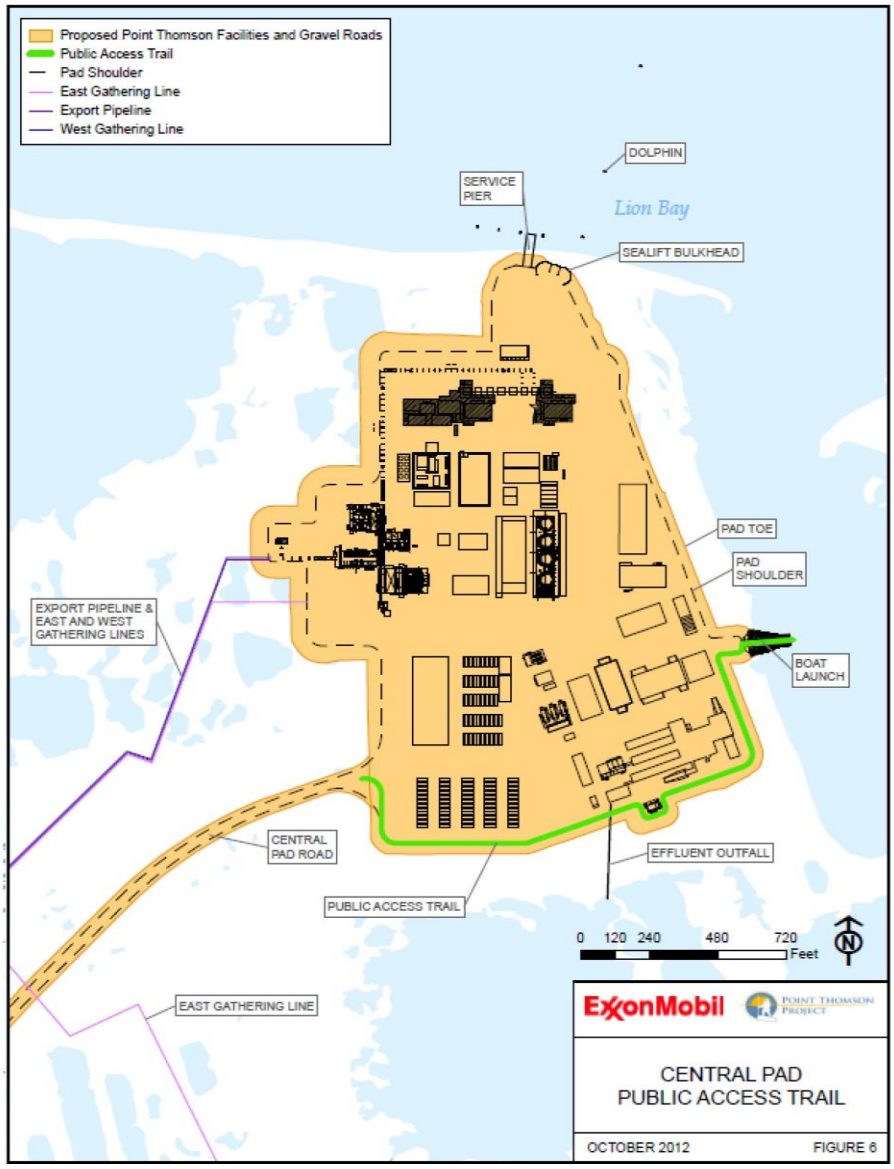
Public access to Central Pad will be controlled by a security office. The land within the ambient air quality boundary encompasses Central Pad. Access to Central Pad is from a road which connects Central Pad to the airstrip. The security office is located on the road at the entrance to Central Pad. The 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 SoLoNO$_x$ mode and between 450°F and 1,100°F while operating out of SoLoNO$_x$ 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 SoLoNO$_x$ mode. The outlet temperature of the catalytic oxidation system ranges between 450°F and 1,100°F while the turbines operate out of SoLoNO$_x$ 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).

Attachment III

Alaska Department of Environmental Conservation
Air Permits Program

[Public Comment - January 23, 2023]

Hilcorp Alaska, LLC
Point Thomson Production Facility

STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ1201TVP02

Prepared by Joshua Klina
ADEC AQ/APP (Juneau)
Reviewed by Dave Jones
ADEC AQ/APP (Juneau)

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ1201TVP02.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ1201TVP02 contains information on the stationary source as provided in the Title V permit application with the change in operator ~~some adjustments made to reflect changes~~ made in Operating Permit No. AQ1201TVP02 Revision 4, which was issued after the application for Operating Permit No. AQ1201TVP02 had been submitted.

The Point Thomson Production Facility is jointly owned by Hilcorp North Slope, LLC (HNS) and ExxonMobil Alaska Production Inc. (EMAP). The stationary source is operated by Hilcorp Alaska, LLC (HAK), who is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 1311 - Crude Petroleum and Natural Gas.

The stationary source is permitted as a gas cycling operation to process approximately 200 million standard cubic feet-per-day of gas in order to recover approximately 10,000 barrels-per-day of hydrocarbon condensate. The recovered hydrocarbon condensate product is sent to market via pipeline. The collected gas is used as fuel gas in the combustion turbines and the unburned gas is re-injected in the field reservoir. Equipment permitted at the Point Thomson Production Facility includes two fuel gas-fired turbines, two dual fuel-fired turbines, one waste incinerator, two flares, 16 heaters, two stationary fire water pump engines, six stationary generator engines, and 38 nonroad engines.

The Point Thomson Production Facility stationary source includes the Central Pad, the airstrip, the water access pad, and the Alaska State C-1 Pad. The Point Thomson Production Facility stationary source does not include the West Pad, the East Pad, the gravel mines, the off-pad pipelines, the gravel roads, and the ice roads.

EMISSIONS UNIT INVENTORY AND DESCRIPTION

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

The emissions units at the Point Thomson Production Facility that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ1201TVP02.

Table A of Operating Permit No. AQ1201TVP02 contains information on the emissions units regulated by this permit as provided in the application. Table B of Operating Permit No. AQ1201TVP02 contains information on the emissions units classified as nonroad engines (NREs). These tables are provided for informational and identification purposes only. Specifically, the emissions unit rating/size provided in these tables are not intended to create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE as indicated in the application from the Point Thomson Production Facility is shown in the table below.

Table J - Emissions Summary, in Tons Per Year (TPY)

Emissions	NO_x	CO	PM_{10}	SO_2	VOC	CO_2e[1]	HAPs	Total[2]
PTE	245.5	243.3	19.4	32.3	187.7	217,835.8	5.6	728.2
Assessable PTE	246	243	19	32	188	0	0	728

Notes:

1. CO_2e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.
2. Total PTE and total assessable PTE shown in the table do not include CO2e and HAPs.
3. HAP emissions are a subset of either VOC emissions or PM_{10} emissions and are excluded from the assessable emissions total to avoid double counting.

The assessable PTE listed under Condition 62.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs). The emissions listed in Table J are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

For criteria pollutants, GHGs, and Hazardous Air Pollutants (HAPs), emissions are as provided in the operating permit application and supplement.

Worst case potential emissions are used for the combustion turbines. Higher potential Carbon Monoxide (CO) emissions result from the dual fuel-fired turbines firing fuel gas than ultra-low sulfur diesel (ULSD) in SoLoNO$_x$ mode. Potential particulate matter (PM) emissions are listed when the turbines are operating in SoLoNO$_x$ mode, because there is no separate PM emission factor for out of SoLoNO$_x$ mode. Higher potential VOC emissions result from the dual fuel-fired turbines firing ULSD than fuel gas, in or out of SoLoNO$_x$ mode. Emission factors for turbines firing out of SoLoNO$_x$ mode are taken from Table B-12a through B-14b of the application for Minor Permit AQ1201MSS03 Revision 5 (50% or 25% load, whichever gives a higher emission factor), except for NO_x and CO. NO_x emission factors provided by the Permittee in the application were based on vendor data and the 2016 and 2018 source test results.

Each turbine has a catalytic oxidizer to reduce the vendor-provided CO emission factors by 90-percent in SoLoNO$_x$ mode and 85-percent out of SoLoNO$_x$ mode. The catalytic oxidizers control 50-percent of VOC emissions while firing on fuel gas in SoLoNO$_x$ mode and 48-percent of VOC emissions while firing on ULSD in SoLoNO$_x$ mode. The catalytic oxidizers control five percent of VOC emissions, regardless of fuel, while operating out of SoLoNO$_x$ mode. VOC emissions are assumed to be 20-percent of the un-burnt hydrocarbon emissions when firing fuel gas and 100-percent un-burnt hydrocarbon emissions while firing ULSD. CO emission factors have been verified by source tests conducted in 2018. CO emission factors provided by the Permittee in the application were based on vendor data and the 2018 source test results.

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

BASIS FOR REQUIRING AN OPERATING PERMIT

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

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

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

The Permittee is required to obtain an operating permit for the Point Thomson Production Facility as specified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a), because the stationary source is:

- A major source. This stationary source is a major source because
  - as defined in Section 302 of the CAA, it directly emits, or has the potential to emit, 100 TPY or more of any air pollutant subject to regulation.

AIR QUALITY PERMITS

Permits to Operate

No previous air quality control permit-to-operate exists for this stationary source.

Title I (Construction and Minor) Permits

Permit No. AQ1201ORL01. On January 20, 2008, the Department issued owner requested limit (ORL) through Permit No. AQ1201ORL01 to authorize Exxon Mobil Corporation (ExxonMobil)'s establishment of an operation camp and drill rigs at the Point Thomson East, West, and Central Pads. This ORL limited the emissions of criteria pollutants from 15 EUs that were authorized to operate at the camp to less than the minor permit thresholds listed in 18 AAC 50.502(c)(1).

Minor Permit No. AQ1201MSS01. On May 26, 2010, the Department issued Minor Permit No. AQ1201MSS01 to authorize a larger drilling effort at Central Pad. The EUs authorized under this Minor Permit included drill rigs, boilers, heaters, a flare, an incinerator, storage tanks, and non-road engines. Minor Permit No. AQ1201MSS01 also established ORLs to avoid classifying the drilling project as a prevention of significant deterioration (PSD) Major Source.

ExxonMobil asked the Department to rescind Minor Permit No. AQ1201MSS01 in April 2011. In a May 2011 response letter to ExxonMobil, the Department rescinded that permit and stated that any restart or continued operation of the EUs will be treated as new construction under applicable provisions of AS 46.14 and 18 AAC 50.

Construction Permit No. AQ1201CPT01. ExxonMobil submitted a PSD permit application for developing a Central Pad production facility on July 19, 2011. On August 20, 2012, the Department issued Construction Permit No. AQ1201CPT01. The project triggered PSD review for

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

NO_x, CO, particulate matter with an aerodynamic diameter of 2.5 microns or less (PM-2.5), and GHGs. Construction Permit No. AQ1201CPT01 authorized the installation and operation of several turbines, pumps, incinerators, generators, boilers, heaters, reciprocating internal combustion engines (RICEs), and drilling EUs to support construction, drilling, and production operations. The permit also included ambient limits for protecting the ambient air quality standards and increments for pollutants that triggered PSD and an ORL for avoiding a PSD permit for SO_2.

Construction Permit No. AQ1201CPT02. In November 2012, ExxonMobil submitted a revised PSD permit application which incorporated revised engineering specifications, changes to the EU inventory, and increased operational flexibility. The revised project triggered PSD review for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10), in addition to the previously triggered pollutants. The Department treated the revised application as a change in project scope and on June 12, 2013, rescinded Construction Permit No. AQ1201CPT01 and issued Construction Permit No. AQ1201CPT02. The revision also incorporated 40 C.F.R. 60 Subpart OOOO, NSPS Requirement for Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution because the rule became effective on October 15, 2012. Additionally, the revision included 40 C.F.R. 63 Subpart JJJJJJ, NESHAPs. While NESHAP standards are not required to be included in a construction permit, ExxonMobil requested them to be included.

Construction Permit No. AQ1201CPT03. In December 2013, ExxonMobil submitted a PSD permit application which incorporated additional changes to the project scope. The revisions triggered PSD review for the previously triggered pollutants, as well as volatile organic compounds (VOCs). ExxonMobil maintained their ORL to avoid PSD review for SO_2. On August 7, 2014, the Department rescinded Construction Permit No. AQ1201CPT02 and issued Construction Permit No. AQ1201CPT03.

In a non-related case, the U.S. Supreme Court ruled on June 23, 2014 that GHG emissions may not be used to trigger PSD review (Case No. 12-1146). The Department was aware of this decision prior to issuing Construction Permit No. AQ1201CPT03 but was unable to incorporate the ramifications into its final decision. However, it was clear that the decision was substantive and would likely lead to additional revisions to the Central Pad project scope and permitting strategy. As a result of this ruling, the Central Pad development project would only trigger PSD review due to the NO_x emissions. The emissions of all other PSD-triggering pollutants were less than the 250 ton per year (tpy) PSD threshold.

ExxonMobil initially incorporated the Supreme Court decision in a PSD permit application that they submitted on September 3, 2014 (Construction Permit Application No. AQ1201CPT04). However, they simultaneously withdrew their PSD permit application and submitted a minor permit application on December 7, 2014. Their December 7, 2014 minor permit application includes ORLs for the non-GHG pollutants (NO_x) that would otherwise trigger PSD review.

Construction Permit No. AQ1201CPT03 Revision No. 1. On January 19, 2015, ExxonMobil notified the Department of material mistakes in Construction Permit No. AQ1201CPT03. ExxonMobil identified Conditions 11.10 and 11.13 as containing material mistakes. The Department reviewed the information and concluded that Conditions 11.10 and 11.13 contained material mistakes. On January 23, 2015, the Department rescinded Construction Permit No. AQ1201CPT03 and issued Construction Permit No. AQ1201CPT03 Revision 1 to correct those material mistakes.

Minor Permit No. AQ1201MSS03. The Department issued Minor Permit No. AQ1201MSS03 on February 27, 2015. ExxonMobil notified the Department of technical errors in the permit on March 23, 2015.

Minor Permit No. AQ1201MSS03 Revision No. 1-5. Minor Permit No. AQ1201MSS03 Revision 1 was issued on March 27, 2015. Minor Permit No. AQ1201MSS03 Revisions 2, 3, and 4 were issued on March 4, 2016, June 20, 2016, and August 26, 2016, respectively. The Department issued Minor Permit No. AQ1201MSS03 Revision 5 to this stationary source on April 17, 2017.

Minor Permit No. AQ1201MSS04. The Department issued Minor Permit No. AQ1201MSS04 on June 24, 2019, while simultaneously rescinding Minor Permit No. AQ1201MSS03 Revision 5. Minor Permit No. AQ1201MSS04 includes three new heaters (EU IDs 152, 162, and 163), each smaller than 2 MMBtu/hr, and the addition of 16 new nonroad engines, EU IDs 150, 151, 153-161, and 164-168. Additionally, the minor permit allows for increased operation of the turbines EU IDs 101-104 while burning fuel gas and operating out of SoLoNO$_x$ mode, and decreased operation of the dual fuel-fired turbines EU IDs 103 and 104 while burning ULSD and operating in SoLoNO$_x$ mode. The minor permit also changed some of the NO$_x$ and CO emission factors for certain operating scenarios to rates lower than those achieved during source tests in 2016 and 2018. Additionally, the NO$_x$ PSD avoidance limit for the turbines EU IDs 101-104 decreased from 188 to 184 tons per consecutive 12-month period combined. The minor permit also contains a new ORL to restrict total CO emissions from the turbines EU IDs 101-104 to no more than 200 tons per 12 consecutive month period.

All stationary source-specific requirements established in Minor Permit No. AQ1201MSS04 are included in the Operating Permit No. AQ1201TVP02 as described in Table K

Title V Operating Permits

Under AS 46.14.190, the owner or operator has requested multiple operating permits for this stationary source.

Operating Permit No. AQ1201TVP01. EMAP submitted a complete application for Operating Permit No. AQ1201TVP01 under an August 11, 2016 cover letter. The Department received the application on August 12, 2016. The application was amended on September 13, 2016. The initial Title V Permit was issued on June 6, 2017 and incorporated terms and conditions of Minor Permit No. AQ1201MSS03 Revision 5.

- Revision No. 1: On June 21, 2017, EMAP notified the Department of a material mistake in the NSPS Subpart A applicability for EUs 112, 113, 115, 116, 130, 138, 147, and 246. The Department corrected the material mistake and issued Operating Permit No. AQ1201TVP01 Revision 1 on June 26, 2017.
- Revision No. 2: On September 13, 2017, EMAP notified the Department of an inconsistency between Condition 6.1 and the Standard Operating Permit Condition IX for visible emissions observations for the flare. The Department revised the condition to mirror the language in the standard permit condition and issued Operating Permit No. AQ1201TVP01 Revision 2 on September 15, 2017.
- Revision No. 3: On December 13, 2018, the Department received EMAP's application to make permit changes previously mentioned in Minor Permit No. AQ1201MSS04 and perform an integrated review creating a new revision to Operating Permit No.

AQ1201TVP01. On April 1, 2019, the Department received an addendum to the application with specific NO_x and CO turbine emission rates requested for the permit, as well as a discussion on the effects of EU ID 155 on the ambient air quality standards. See AQ1201MSS04 Technical Analysis Report for more details on these changes.

- Revision No. 4: On November 23, 2021, the Department received correspondence that reflected the name change of the Permittee from ExxonMobil Alaska Production Inc. (EMAP) to Hilcorp Alaska, LLC (HAK), effective on January 1, 2022. The Department found that the change in the Permittee for this stationary source is an administrative amendment as described by 40 C.F.R. section 71.7(d) adopted by reference in 18 AAC 50.040(j).

Operating Permit No. AQ1201TVP02. EMAP submitted a complete application for Operating Permit No. AQ1201TVP02 under an August 13, 2021 cover letter. The Department received the application on August 16, 2021. As mentioned previously, the Department received correspondence that reflected the name change of the Permittee from EMAP to HAK, effective on January 1, 2022. Operating Permit No. AQ1201TVP02, once issued, will reflect this change because it will be issued after January 1, 2022.

COMPLIANCE HISTORY

The stationary source commenced operations, for purposes of Title V permitting, in November 2015.

Based on a Full Compliance Evaluation report covering operations from August 20, 2012 through June 30, 2017 with an onsite visit conducted on July 31 through August 1, 2017, the stationary source was found out of compliance for six procedural violations and five excess emissions violations. Four of the five excess emissions violations were for violating the daily average temperature limits for the outlet of the catalytic bed associated with the turbines. All of these daily temperature violations were for either load shifting or cold starts of the gas cycling process, which were exempted starting with Minor Permit No. AQ1201MSS03 Revision 2. These violations have been addressed and resolved.

Based on a Full Compliance Evaluation report covering operations from April 1, 2019 through December 31, 2020 with a virtual inspection conducted on March 5, 2021, the stationary source was found out of compliance with Condition 28.1 – Fuel Gas Hydrogen Sulfide (H_2S) Content Limit found in Operating Permit No. AQ1201TVP01 Rev. 4. This condition requires the Permittee to 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 each calendar month using ASTM D 4810-06, D 4913-89, or Gas Processors Association 2377-86, or an appropriate alternative method adopted in 18 AAC 50.035(c). Samples at Point Thomson Production Facility are collected using Length-of-Stain Detector Tubes (Draeger Tubes) per ASTM D-4810-06. On July 19, 2019, the Permittee discovered that the Draeger tubes used to collect the June 2019 samples had expired at the end of May 2019. These violations have been addressed and resolved.

Based on a Full Compliance Evaluation report covering operations from January 1, 2022 through September 30, 2022 with an onsite visit conducted on March 15, 2022, the stationary source was found to be operating in compliance with Operating Permit Nos. AQ1201TVP01 Rev. 3, AQ1201TVP01 Rev. 4, Minor Permit No. AQ1201MSS04, and Alaska Air Quality Control Regulations.

Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations indicate a stationary source generally operating in compliance with its operating permit.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

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

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

- Permit to Operate issued on or before January 17, 1997 (these permits cover both construction and operations);
- Construction permits issued on or after January 18, 1997; and
- Minor permits issued on or after October 1, 2004.

Preconstruction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions, and conditions that quote or paraphrase requirements in regulation. These requirements include, but are not limited to, each emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of issuance of Operating Permit No. AQ1201TVP02.

Table K below lists the requirements carried into Operating Permit No. AQ1201TVP02 to ensure compliance with the preconstruction permit requirements.

Table K - Comparison of Minor Permit No. AQ1201MSS04 Conditions to Operating Permit No. AQ1201TVP02 Conditions[1]

AQ1201MSS04 Condition No.	Description of Requirement	AQ1201TVP02 Condition No.	How Condition was Revised
No Equivalent	State Emission Standards	1-15	State Emission Standards were not carried forward into AQ1201MSS04.
3-6	Ambient Air Quality Protection Requirements	18-21	Title V terms and conditions including specific monitoring, recordkeeping, and reporting (MR&R)
7-10	NO_x PSD Avoidance Limits	22-25	Title V terms and conditions include specific MR&R
11-13	CO PSD Avoidance Limits	26-28	Title V terms and conditions include specific MR&R
14-16	Minor Permitting Avoidance Limits for SO_2	29-31	Title V terms and conditions include specific MR&R
17	Limits to Avoid Regulation under NSPS Subpart Ec	32	Title V terms and conditions include specific MR&R

Note:

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

NON-APPLICABLE REQUIREMENTS

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

- **Incineration Units:** The Department has adopted 40 C.F.R. 60, Subpart DDDD by reference into 18 AAC 50.040(a)(LL), but has not yet developed or submitted a State plan for existing Commercial and Industrial Solid Waste Incineration (CISWI) units to the U.S. EPA in accordance with the procedures outlined within the Subpart. As of the publication date for this decision, U.S. EPA has not developed a federal plan according to 40 C.F.R. 60.27 to implement these guidelines. 40 C.F.R. 60.2545 states that this Subpart does not directly affect CISWI unit owners or operators in the State. Instead, the Subpart obligates owners and operators to comply with the State plan. Therefore, the model rule is currently not an applicable requirement for the purpose of this operating permit as defined in 40 C.F.R. 71.2.
- **40 C.F.R. 60 Subparts OOOO and OOOOa:** Subparts OOOO and OOOOa do not include standards for oil and conventional natural gas wells that are not hydraulically fractured.[3] The gas wells at Central Pad will not be hydraulically fractured, as described in the *Permit as Shield from Inapplicable Requirements* section, Section 10, of the Title V permit.

[3] 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

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 C.F.R. 71, as specified in 18 AAC 50.040(j), to establish operating permit regulations. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 C.F.R. 70. This Statement of Basis, required under 40 C.F.R. 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ1201TVP02. Additionally, and as required by 40 C.F.R. 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1, 3 through 6, and 14, Visible Emissions Standard and MR&R

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

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

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

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 3 through 5 (for liquid fuel-burning equipment), Condition 6 (for flares), and Condition 14 (for dual fuel- burning equipment) of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares.

The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations of emissions unit exhaust, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state emission standards for visible emissions.

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

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

Condition 6 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas fuel-

burning flares normally burn without emitting visible emissions. However, gas fuel-burning flares have been shown to smoke when a control device malfunctions (e.g., knockout drum, flare scrubber, gas or steam assist, or vapor recovery system). The condition sets out a protocol to collect actual field data to determine compliance with the 20 percent visible emissions standard for flares.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for visible emissions is waived; i.e., no Method 9 ~~or Smoke/No Smoke~~ observations will be required. The Department has found that natural gas fuel-burning equipment inherently has negligible visible emissions. Therefore, certification that an emissions unit burns only natural gas ensures that the State visible emission standard is met. However, the Department can request a source test for PM emissions from any smoking equipment.

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

Liquid Fuel-Burning Equipment:

Monitoring – The emissions unit exhaust must be observed by either the Method 9 Plan ~~or the Smoke/No Smoke Plan~~ as detailed in Condition 3. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations. The Permittee has opted not to use the Smoke/No Smoke plan and requested that this option not be included in the permit, so the Department did not include this provision in the permit.

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

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

Dual Fuel-Burning Equipment:

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU IDs 103 and 104 operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 14.3 is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU IDs 103 and 104 operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that emissions unit consists of an annual certification of compliance with the visible emissions standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

~~Significant~~ Insignificant Emissions Units ~~under 18 AAC 50.326(d)(1)~~:

EU IDs 115, 116, 130-138, 152, 162, and 163 have potential emissions that are below the significant thresholds listed in 18 AAC 50.326(e). Insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. These requirements are covered in Condition 33. ~~However, these emissions units do not qualify as insignificant per 18 AAC 50.326(d)(1) because they~~

~~are subject to emissions unit- specific requirements. Monitoring for these emissions units consists of an annual certification under Condition 87 for the visible emissions standard based on reasonable inquiry.~~

Flares:

Monitoring for flares (EU IDs 112 and 113) requires Method 9 observations of scheduled daylight flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

Condition 2, Incinerator Visible Emissions Standard and MR&R

Legal Basis: This visible emissions standard under 18 AAC 50.050(a) applies to the operation of any incinerator in Alaska, including an air curtain incinerator. The visible emissions standard is included in the SIP approved by EPA, and the Department included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

Factual Basis: Condition 2 requires the Permittee to comply with the applicable visible emissions standard in 18 AAC 50.050(a). The Permittee shall not cause or allow the affected incinerator(s) to violate this standard. The Permittee is required to monitor, record, and report according to Condition 2.1.

Conditions 7, 8 through 13, and 14, PM Standard and MR&R

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

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

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

Factual Basis: Condition 7 prohibits emissions in excess of the applicable state PM standard. MR&R requirements are listed in Conditions 8 through 10, 11 through 13, and 14 of the permit. These conditions have been adopted into regulation as SPC IX.

The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state's emission standards for PM.

Gas Fuel-Burning Equipment:

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

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

Liquid Fuel-Burning Equipment:

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

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

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

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

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

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

Dual Fuel-Burning Equipment:

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU IDs 103 and 104 operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 14.3 is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU IDs 103 and 104 operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that unit consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

~~Significant~~ Insignificant Emissions Units ~~under 18 AAC 50.326(d)(1)~~:

EU IDs 115, 116, 130-138, 152, 162, and 163 have potential emissions that are below the significant thresholds listed in 18 AAC 50.326(e). Insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. These requirements are covered in Condition 33. ~~However, these emissions units do not qualify as insignificant per 18 AAC 50.326(d)(1) because they are subject to emissions unit- specific requirements. Monitoring for these emissions units consists of an annual certification under Condition 87 for the PM emissions standard based on reasonable inquiry.~~

Flares:

Monitoring of flares for PM is waived; i.e., no source testing is required, because of the difficulty and questionable results these tests produce when applied to flares. Compliance with the state visible emissions standard serves as surrogate compliance demonstration for the state particulate matter emissions standard.

Condition 15 through 17, Sulfur Compound Emissions Standard and MR&R

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

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

The sulfur compound standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

Liquid Fuels:

For the liquid fuel-burning equipment, EU IDs 96, 107-111, 114-116, 130-138, 147-149, 152, 162, 163, and EU IDs 103 and 104 when burning ultra-low sulfur diesel (ULSD), the MR&R conditions are SPCs XI and XII adopted into regulation pursuant to AS 46.14.010(e). Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g., diesel or No.2 fuel oil). Fuel sulfur testing will verify compliance. Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard.

For the liquid fuel-burning equipment, EU IDs 96, 115, 116, 130-138, 152, 162, and 163, and EU IDs 103 and 104 when burning liquid fuel, to avoid a minor permit classification for SO_2, the Permittee is required to limit sulfur contents of diesel fuel burned in the emissions units to concentrations lower than necessary, as shown in Condition 29. Therefore, the MR&R requirements in Condition 16 for compliance with the state SO_2 standard in Condition 15 have been streamlined based on the more stringent fuel sulfur content limit of 0.0015 percent by weight, the sulfur content of ultra-low diesel fuel (ULSD), rather than having two sets of MR&R.

For liquid fuel-burning heater, EU ID 147, the Permittee may burn used oil mixed with ULSD.

To avoid a minor permit classification for SO_2, the Permittee is required to measure the ash content of a representative sample of the used oil and then is allowed to use a blending ratio from Table F, corresponding to the measured ash content, as shown in Condition 30. By complying with Condition 30, the Permittee will ensure compliance with Condition 15. Therefore, the MR&R requirements in Condition 16 for compliance with the state SO_2 standard in Condition 15 have been streamlined based on the blending requirements of Condition 30.

Beyond as noted above, the Department has determined that the standard permit conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions, as modified, meet the requirements of 40 C.F.R. 71.6(a)(3).

Gaseous Fuels:

Fuel sulfur testing will verify compliance with SO_2 emission standard. ~~Mercaptans are a concentrated thiol molecule (e.g., ethanethiol) composed of hydrogen and sulfur used to detect the presence of natural gas by its strong odor as in t-butyl-mercaptan. Basically, it is the mercaptan that allows the presence of gas to be detected by its odor, so it is naturally used as a leak detectant. However, by that same token, it can raise the sulfur content of the natural gas and should be accounted for in determining compliance with the state sulfur compound emissions standard. The Department has therefore revised the basic MR&R requirements to monitor the total sulfur quantity, instead of H_2S concentration, in the natural gas fuel due to the presence of mercaptans in the gas supply which raise the sulfur concentration.~~

Fuel sulfur testing will verify compliance with SO_2 emission standard. Fuel gas sulfur is measured as hydrogen sulfide (H_2S) concentration in parts per million by volume (ppmv). Calculations show that fuel gas containing no more than 4000 ppmv H_2S will always comply with this emission standard. This is true for all fuel gases, even with no excess air. Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H_2S concentration of even 10 percent of 4,000 ppmv is currently not available in Alaska and is not projected to be available during the life of this permit. Condition 17 streamlines MR&R requirements for compliance with the state sulfur compound emission standard in Condition 15 by requiring compliance with the more stringent fuel gas H_2S limits in Condition 31 for protection of the SO_2 ambient air quality standards and associated MR&R requirements in Conditions 31 rather than have two sets of MR&R.

Conditions 18 through 32, Preconstruction Permit Requirements

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP-approved Permits to Operate (PTO) issued on or before January 17, 1997 and operating permits issued between January 18, 1997 and September 30, 2004, and with all stationary source-specific requirements in EPA PSD permits, SIP-approved construction permits, SIP-approved minor permits, and owner requested limits (ORLs) established under 18 AAC 50.225. These requirements include ~~Best Available Control Technology (BACT),~~ limits to ensure compliance with the attainment or maintenance of ambient air quality standards ~~or maximum allowable ambient concentrations,~~ and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally approved SIP or approved operating permit program.

Factual Basis: These conditions require the Permittee to comply with pre-construction permit terms and conditions. These requirements are listed in Table K. These requirements were carried forward from Minor Permit No. AQ1201MSS04 to protect ambient air quality, avoid PSD classification for NO_x and CO, avoid minor permit classification for SO_2, and avoid regulation under 40 C.F.R. 60 Subpart Ec for the waste incinerator.

Condition 33, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.050(a) for all incinerators regardless of size and 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. 18 AAC 50.050(a) and 50.055 are contained in the federally approved SIP. The Department also added permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

The Department finds that the insignificant emissions units at this stationary source do not require specific monitoring, recordkeeping, and reporting to ensure compliance under these conditions.

Condition 33.4.a requires certification that the insignificant emissions units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution, based on reasonable inquiry.

The Department used the language in SPC V, adopted by reference under 18 AAC 50.346(b)(4), for the permit condition.

Conditions 34 through 39, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 C.F.R. 70 Appendix A). The Department is the permitting authority for the Part 70 program. As the permitting authority, the Department requires compliance with all permit conditions. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standard (NSPS) program, NSPS requirements are included in the definition for "applicable requirement" under 40 C.F.R. 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The NSPS provisions under Subparts IIII and KKKK apply to the stationary source. Therefore, the Department requires compliance with those standards in a Part 70 permit issued under the approved program. However, the Department is unable to change the actual wording of the relevant standard to substitute "the Department" for "the Administrator" in those standards. Since the Department expects access to any permit-related information provided by the Permittee to the EPA, the Department will act on its responsibility as the permitting authority to determine compliance with the standard. To reflect this relationship and for the purposes of this permit, the Department has defined "the Administrator" to mean the "EPA and the Department" for conditions implementing the federal emission standards under Section 4.

Most affected facilities ~~(with the exception of some storage tanks)~~ subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 101-104 are subject to NSPS Subpart KKKK and EU IDs 107-111, 114, 148, and 149 are subject to NSPS Subparts IIII, and therefore both sets of emissions units are subject to certain portions of Subpart A.

Conditions 34.1 through 34.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU IDs 101-104. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility[4] or in the event of a modification or reconstruction of an existing facility[5] into an affected facility.

Condition 34.4 - The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 C.F.R. 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

Condition 35 - The requirements in 40 C.F.R. 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to EU IDs 101-104.

Condition 36 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 101-104. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility, or at such other times as may be required by EPA.

Condition 37 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to most NSPS affected facilities subject to Subpart A (EU IDs 101-104).

Condition 38 - The condition states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards for EU IDs 101-104.

Condition 39 - Concealment of emissions prohibitions in 40 C.F.R. 60.12 are applicable to EU IDs 101-104, 107-111, 114, 148, and 149.

The flare<u>s are</u> ~~is~~ not subject to 40 C.F.R. 60.18 because <u>they are</u> ~~it is a~~ safety device<u>s</u> and not ~~a~~ control device<u>s</u>. <u>The flares do</u> ~~It does~~ not control emissions from any NSPS regulated emissions units.

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

Conditions 40 through 45, NSPS Subpart IIII Requirements

Legal Basis: NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICEs are manufactured after April 1, 2006 for non-

[4] *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.

[5] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any

apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2.

fire pump engines and manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006 for fire pump engines.

EU IDs 107-109, 114, 148, and 149 are non-emergency CI ICE, while EU IDs 110 and 111 are emergency fire pump engines. These EUs meet the applicability criteria of Subpart IIII under 40 C.F.R. 60.4200(a)(2)(i) and (ii).

Factual Basis: These conditions incorporate the Subpart IIII emissions standards applicable to EU IDs 107-111, 114, 148, and 149. The Permittee may not cause or allow these emissions units to violate these standards. These conditions also provide MR&R specifically called out for the EUs within the Subpart. The Permittee is required to operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer.

Emission standards that apply to Subpart IIII-affected CI ICE depend on several factors, including, but not limited to, the unit's purpose (whether emergency or non-emergency), model year, displacement in liters/cylinder (L/cyl), and location. Some of this information is provided in Table A of the permit.

Because the stationary source location meets the definition of "Remote areas of Alaska" in 40 C.F.R. 60.4219, the applicable standards and MR&R requirements for EU IDs 107-111, 114, 148, and 149 are rooted from the provisions under 40 C.F.R. 60.4216 that specifically address engines used in remote areas of Alaska. In particular, 40 C.F.R. 60.4216(c) allows the Permittee to comply with the applicable emission standards for emergency engines in 40 C.F.R. ~~60.4202 and~~ 60.4205, and not those for non-emergency engines in 40 C.F.R. ~~60.4201 and~~ 60.4204, whether the unit is operated as emergency or non-emergency CI ICE. Additionally, the yet to be installed EU IDs 148 and 149 must also comply with the importing or installing stationary CI ICE requirements in 40 C.F.R. 60.4208(a). Therefore, as shown in Condition 42.1, EU IDs 107-109, 114, 148, and 149 are subject to EPA Tier 2 and 3 emission standards for new nonroad CI engines as specified in Tables 2 and 3 to Appendix I to Part 1039 ~~as well as the exhaust opacity standards under 40 C.F.R. 1039.105~~. Specific standards and requirements applicable to EU IDs 110 and 111 as emergency fire pump engine units are specified in 40 C.F.R. 60.4202(d), 60.4205(c), 60.4209, 60.4211(f), 60.4214(b), and Table 4 to Subpart IIII, as shown in Conditions 42.2, 43.4, and 43.5.

EU IDs 107-109, 114, 148, and 149 do not need and are not equipped with diesel particulate filters to comply with the applicable PM standard. Therefore, the provisions regarding diesel particulate filters in 40 C.F.R. 60.4209(b) and 60.4214(c) are not included in the permit.

The Department added Condition 44 to gap-fill the operating and excess emissions and permit deviation reporting requirements. The Department has also added Condition 43.6 to provide compliance monitoring for the fuel requirements under Condition 41.3.

The NSPS GAPCP requirements provided in 40 C.F.R. 60.4211(a), as reflected in Conditions 40.2 and 40.3, suffices the State GAPCP requirement under 18 AAC 50.346(b)(5). MR&R requirements are provided in Conditions 43 and 44.

The provisions of NSPS Subpart IIII listed in Conditions 40 through 45 are current as amended through December 4, 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.

Conditions 46 through 48, NSPS Subpart KKKK Requirements

Legal Basis: Conditions 47 and 48 prohibit the Permittee from exceeding emission standards for NO_x and SO_2 set out in Subpart KKKK. Condition 46.2 reiterates the "good air pollution control practices" requirements for the affected EUs. The Subpart applies to 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. EU IDs 101-104 meet these criteria and are therefore subject to these requirements.

Factual Basis: These conditions incorporate the Subpart KKKK NO_x and SO_2 emissions standards. The Permittee may not cause or allow EU IDs 101-104 to violate these standards. These conditions also provide MR&R specifically called out for within the Subpart. Condition 47.3, which requires keeping records of performance tests data by referencing the standard requirement in Condition 81, is added to gap-fill the recordkeeping requirements.

Condition 49 through 50, NESHAP Subpart A and Subpart ZZZZ Requirements

Legal Basis: Most sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements are subject to NESHAP Subpart A. This stationary source is subject to 40 C.F.R. 63 Subpart ZZZZ and therefore is subject to the general provisions of Subpart A as specified in the provisions for the applicability of NESHAP Subpart A in Table 8 to NESHAP Subpart ZZZZ.

Factual Basis: Subpart A contains the general requirements applicable to all affected sources subject to NESHAP. In general, the intent of NESHAP is to regulate specific categories of stationary sources that emit or have the potential to emit one or more hazardous air pollutants.

For EU IDs 107-111, 114, 148, and 149, the Permittee must comply with the requirements of 40 C.F.R. 60 Subpart IIII, and there are no further requirements for EU IDs 107-111, 114, 148, and 149 under NESHAP Subpart ZZZZ.

Condition 51, Asbestos NESHAP

Legal Basis: The requirements of 40 C.F.R. 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 C.F.R. 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M and associated general provisions under Subpart A, as adopted by reference under 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation. ADEC received delegation for §61.145 and §61.154 of Subpart M (Asbestos), along with other sections and appendices which are referenced in §61.145, as §61.145 applies to sources required to obtain an operating permit under Alaska's regulations. ADEC has not received delegation for Subpart M for sources not required to obtain an operating permit under Alaska's regulations.

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

Condition 52 and Section 14, Compliance Assurance Monitoring (CAM)

Legal Basis: The combustion turbines (EU IDs 101-104) use ~~a~~ control devices, catalytic oxidizers, to reduce CO emissions. The combustion turbines ~~achieve compliance with the CO PSD avoidance limit in Condition 26 and~~ have the potential pre- control device emissions equal to or greater than the major source thresholds for CO (100 TPY). This condition applies because the stationary source has pollutant-specific emitting units that satisfy all of the CAM applicability criteria in 40 C.F.R. 64.2(a)(1-3): (1) the EUs are subject to an applicable emission limitation or standard; (2) the units use a control device to comply with any such applicability emission limitation or standard; and (3) the units have potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant.

Factual Basis: ~~The Permittee has an ORL in Condition 26 to restrict the potential CO emissions to avoid classification as a PSD major source.~~ The combustion turbines use ~~a~~ control devices to reduce CO emissions. ~~achieve compliance with the CO limit in Condition 26 and have potential pre-control device emissions equal to or greater than the major source thresholds for CO (100 TPY).~~ The control devices used are ~~is an~~ oxidation catalyst that reduces CO and VOC emissions from the turbines. The oxidation catalyst must operate within the temperature ranges contained in Condition 28.

The design control efficiency for the catalytic oxidizer is 90% while the turbines are operating in SoLoNO$_x$ mode and 85% while the turbines are operating out of SoLoNO$_x$ mode. EMAP had prepared a Compliance Assurance Monitoring strategy shown in Section 14 to ensure fulfillment of the 40 C.F.R. 64 CAM rule. The Department incorporates EMAP's plan in Condition 52 and Section 14.

Condition 53, Chemical Accident Prevention Provisions

Legal Basis: This condition applies because the Permittee has more than a threshold quantity of a regulated substance in a process, as determined by 40 C.F.R. 68.115.

Factual Basis: This condition incorporates applicable 40 C.F.R. 68 requirements. The Permittee must comply with RMP provisions of 40 C.F.R. 68.190 during the permit term.

Conditions 54 through 56, Protection of Stratospheric Ozone, 40 C.F.R. 82

Legal Basis: The requirements of 40 C.F.R. 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 C.F.R. 71.2.

Condition 54 requires compliance with the applicable requirements in 40 C.F.R. 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants in 40 C.F.R. 82, Subpart F.

Conditions 55 and 56 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 55 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 56 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these requirements. The Point Thomson Production Facility uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

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

Condition 57, NESHAP Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAP and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and EPA if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 C.F.R. 63 and to keep records of applicability determinations and make those records available to the Department.

Conditions 58 through 60, Standard Terms and Conditions

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

Factual Basis: These are standard conditions that apply to all permits.

Condition 61, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400-403. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 C.F.R. 71.9 is not applicable.

Factual Basis: Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. The regulations in 18 AAC 50.400-403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 62 and 63, Emission Fees

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

Factual Basis: Except, as noted in the last paragraph, the Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. SPC I requires the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

SPC I also allows the Permittee to recalculate the stationary source’s assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

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

As indicated in Condition 63.3, if the stationary source has not commenced construction or operation on or before March 31st, the Permittee may submit a waiver letter certified by the responsible official under 18 AAC 50.205 indicating that the assessable emissions for the source is zero for the previous fiscal year.

The Department has modified Condition 62 by deleting the phrase "in quantities 10 tons per year or greater" to match the revision made in 18 AAC 50.410 effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 64, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 C.F.R. 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units; i.e., except EU IDs 101-104, 107-111, 114, 148, and 149.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all units.

The Department adopted this condition under 18 AAC 50.346(b) as SPC VI pursuant to AS 46.14.010(e). Records kept in accordance with Condition 64.2 for units subject to GAPCP need to be maintained for 5 years in accordance with Condition 81 even if a unit is no longer subject to this condition.

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

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

Condition 65, Dilution

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

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

Condition 66, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition reiterates 18 AAC 50.045(d), which requires a person to use reasonable precautions when handling, storing, or transporting bulk materials or engaging in an industrial activity. 18 AAC 50.045 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

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

Condition 67, Stack Injection

Legal Basis: This condition reiterates 18 AAC 50.055(g), which prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e., disposing of material by injecting it into a stack). 18 AAC 50.055 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

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

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

Condition 68, Air Pollution Prohibited

Legal Basis: This condition requires compliance with 18 AAC 50.110. 18 AAC 50.110 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. The Department also included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

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

Condition 69, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if unavoidable emergency, malfunction, or non-routine repair activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235. Technology-Based Emission Standard requirements

apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 85. Excess emission reporting under Condition 85 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 85.

Condition 70, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. 18 AAC 50.065 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website http://dec.alaska.gov/air/air-permit/open-burn-info. Condition 70.1 requires the Permittee to keep records to demonstrate compliance with the standards for conducting open burning.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 87.

Condition 71, Requested Source Tests

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

Factual Basis: This condition applies because this is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a). Compliance is demonstrated through the submission of the required source test plan and report.

Conditions 72 through 74, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 72 and 74 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 73 specifies source test methods, as required by 40 C.F.R. 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 72 through 74.

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

Condition 75, Test Exemption

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

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

Conditions 76 through 79, Test Deadline Extension, Test Plans, Notifications, and Reports

Legal Basis: Conditions 77 through 79 require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 76 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o) constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 50.345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

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

Condition 80, Particulate Matter Calculations

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

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. The Permittee must use the equation given in this condition to calculate the particulate matter emission concentration from the source test results. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 81, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 C.F.R. 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4). It also incorporates the general NSPS recordkeeping requirement under 40 C. F. R. 60.7(f), which the Department adopted by reference under 18 AAC 50.040(a)(1).

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide evidence of compliance with this requirement.

40 C.F.R. 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part while 40 C.F.R. 71.6(a)(3)(ii) requires at least five years of records retention. The five-year records retention requirement in Condition 81 satisfies both 40 C.F.R. 60.7(f) and 40 C.F.R. 71.6(a)(3)(ii).

Condition 82, Certification

Legal Basis: All operating permits must contain a requirement to certify permit applications, reports, affirmations, or compliance certification, per 18 AAC 50.345(j). The requirement is a part of the SIP approved by EPA.

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). 18 AAC 50.345(j) allows the excess emissions reports to be certified with the operating report. However, the Department reminds the Permittee that excess emissions reports must be submitted according to the applicable deadline given in Condition 85 and must not be withheld from the Department until the deadline for submittal of an operating report. This condition supplements the reporting requirements of this permit. The certification statement through electronic signature and options for submittal provide paperless options for reporting without compelling Permittees to any specific means of submission.

Condition 83, Submittals

Legal Basis: This condition applies because the Permittee is required to send reports to the Department and supplements the standard reporting and notification requirements of this permit.

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

Condition 84, Information Requests

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

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

Condition 85, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

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

The Department used the language in SPC III, adopted by reference under 18 AAC 50.346(b)(2), for the permit condition. The Department used the notification form in SPC IV adopted by reference under 18 AAC 50.346(b)(3), for the notification requirements (see Section 12) for the notification requirements.

Condition 86, Operating Reports

Legal Basis: The condition specifies reporting requirements as required by 40 C.F.R. 71.6(a)(3)(iii)(A) which the Department has adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The Department used the language in SPC VII, adopted by reference under 18 AAC 50.346(b)(6), for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements identified elsewhere in the permit.

The condition specifies that for the transition periods between an expiring permit and a renewal permit, the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports: one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 87, Annual Compliance Certification

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

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

Condition 87.2 provides clarification of transition periods between an expiring permit and a renewed or revised ~~renewal~~ permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified. The Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period or may choose to provide two reports: one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewed or revised~~renewal~~ permit until December 31.

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

Condition 88, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the state, so the state is able to satisfy the federal requirement to submit emission inventory data from point sources to the EPA as required under 40 C.F.R. 51.15 and 51.321. The federal emission inventory requirement applies to sources defined as point sources in 40 C.F.R. 51.50. Under

18 AAC 50.275, the state also requires reporting of emissions triennially for stationary sources with an air quality permit, regardless of permit classification. This includes sources that do not meet the federal emission thresholds in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A. The state must report emissions data as described in 40 C.F.R 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A to EPA.

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

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 C.F.R. 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's Air Online Services webpage http://dec.alaska.gov/Applications/Air/airtoolsweb/. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options are to submit the emission inventory via mail, email, or fax.

Detailed instructions on completing and submitting the emission inventory and the report form are available at the Point Source Emission Inventory page http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory by clicking the Emission Inventory Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, stationary sources with air quality permits are required to submit with each report emissions data described in 40 C.F.R. 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A, as applicable. Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds shown in Condition 88.1 for Type A (large) sources, as listed in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A, are required to report emission inventory data every year for the previous calendar year (also known as the inventory year). For triennial inventory years, Type A sources only need to submit one report, not both an annual report and a separate triennial report.

Stationary sources, excluding owner requested limits (ORLs) issued under 18 AAC 50.225 and preapproved emission limits (PAELs) issued under 18 AAC 50.230, that do not meet any of the emission thresholds in Condition 88.1 for Type A (large) sources are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year under Condition 88.2.

As of the issue date of this permit, the Point Thomson Production Facility is required to report under Condition 88.2.

The Department has modified Condition 88 by lowering the thresholds that require reporting to include all stationary sources regardless of permit classification (excluding ORLs and PAELs) to capture the new requirements found in 18 AAC 50.275, effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 89, NSPS and NESHAP Reports

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

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The reports themselves provide monitoring for compliance with this condition.

Condition 90, Permit Applications and Submittals

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

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

Conditions 91 through 93, Permit Changes and Revisions Requirements

Legal Basis: The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under18 AAC 50.326(j)(4). 40 C.F.R. 71.6(a)(8), (12), and (13), incorporated by reference under 18 AAC 50.040(j), require that these provisions be included in operating permits.

Factual Basis: 40 C.F.R. 71.6(a)(12) and (13), as reflected in Conditions 92 and 93, respectively, specify changes that may be made without a permit revision, and 40 C.F.R. 71.6(a)(8) (Condition 91) states permit revisions are not required for some emissions trading and similar programs.

The Permittee did not request trading of emission increases and decreases as described in 40 C.F.R. 71.6(a)(13)(iii); therefore, language addressing these provisions has not been included in this permit as part of Condition 91.

Condition 94, Permit Renewal

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

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 C.F.R. 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the

operating permit. According to 40 C.F.R. 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 C.F.R. 71.5(c) and remits payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 C.F.R. 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

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

Conditions 95 through 99, General Compliance Requirements and Schedule

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

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

Conditions 100 and 101, Permit Shield

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

Factual Basis: Table I of Operating Permit No. AQ1201TVP02 shows the permit shields that the Department granted to the Permittee. The Department based the determinations on the permit application, past operating permit, Title I permits, and inspection reports. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

ATTACHMENT A

FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A-General Provisions]

Pollutant *(Circle One)*: SO_2 NO_x TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company:
Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission Data Summary [1]	**CMS Performance Summary** [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ..... ____
b. Control equipment problems ..... ____	b. Non-Monitor equipment malfunctions ..... ____
c. Process problems ..... ____	c. Quality assurance calibration ..... ____
d. Other known causes ..... ____	d. Other known causes ..... ____
e. Unknown causes ..... ____	e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... ____ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since last quarter in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ *Date*: _____

Title: _____

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ1201TVP02

Public Comment Date: January 23, 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, 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

Table of Contents

Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
Administrator .....EPA and the Department.
AOS .....Air Online Services
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT.....best available control technology
~~bHp .....brake horsepower~~
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
C.F.R.....Code of Federal Regulations
CAA or The Act. Clean Air Act
CO.....carbon monoxide
CO_2e.....CO_2-equivalent
Department.....Alaska Department of Environmental Conservation
dscf.....dry standard cubic foot
~~EMAP .....ExxonMobil Alaska Production Inc.~~
EPA.....US Environmental Protection Agency
EU.....emissions unit
EU ID.....emissions unit identification number
~~GACT .....Generally Available Control Technology~~
GAPCP .....Good Air Pollution Control Practice
GHG.....Greenhouse Gas
gr/dscf .....grain per dry standard cubic foot (1 pound = 7000 grains)
~~gph .....gallons per hour~~
HAK.....Hilcorp Alaska, LLC
HAPs.....hazardous air pollutants [as defined in AS 46.14.990]
HNS .....Hilcorp North Slope, LLC
Hp .....horsepower
~~kPa .....kiloPascals~~
LAER.....lowest achievable emission rate
MACT.....maximum achievable control technology [as defined in 40 C.F.R. 63]
MMBtu/hr .....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R.....monitoring, recordkeeping, and reporting
NAICS.....North American Industrial Classification System
NESHAP .....National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
NH_3.....ammonia
NO_x.....nitrogen oxides
N_2O.....Nitrous Oxide
NSPS .....New Source Performance Standards [as contained in 40 C.F.R. 60]
~~O & M .....operation and maintenance~~
O_2.....oxygen
~~PAL .....plantwide applicability limitation~~
Pb.....lead
PM.....particulate matter
PM_{10}.....particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm.....parts per million
ppmv, ppmvd.....parts per million by volume on a dry basis
~~psia .....pounds per square inch (absolute)~~
PSD.....prevention of significant deterioration
PTE.....potential to emit
SIC.....Standard Industrial Classification
SIP .....State Implementation Plan
~~SPC.....Standard Permit Condition~~
SO_2.....sulfur dioxide
~~tph.....tons per hour~~
TPY .....tons per year
VOC .....volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
VOL.....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 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:		~~Emilie Niedermeyer, Environmental Specialist~~ Matt Brown, Asset Team Lead 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 ~~(907) 564-4332~~ (907) 777 -8300 ~~emilie.niedermeyer@hilcorp.com~~ mbrown@hilcorp.com
Fee Contact:		Hilcorp Alaska, LLC, Attn. Accounts Payable P.O. Box 61529 Houston, TX 77208 (713) 304-5402
Permit Contact:		~~Luke Saugier, Senior Vice President~~ Emilie Niedermeyer, Environmental Specialist 3800 Centerpoint Dr, #1400 Anchorage, AK 99503 ~~(907) 777-8300~~ (907) 564-4332 ~~lsaugier@hilcorp.com~~ emilie.niedermeyer@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 and Table B 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. The specific descriptions do not restrict the Permittee from replacing an EU identified in Table A and Table B. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement EU, including any applicable minor construction permit requirement.

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	TBD
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

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)]

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, if actual emissions remain less than the significant thresholds in 18 AAC 50.326(e), monitor, record, and report in accordance with Condition 33. Otherwise, monitor, record, and report in accordance with Conditions 3 through 5. ~~monitoring shall consist of an annual compliance certification under Condition 87 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 86 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 86 indicate whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 85 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 85 ~~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 either the Method 9 Plan under Condition 3.3 ~~or the Smoke/No-Smoke Plan under Condition 3.4~~.

~~3.1. The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 3.5.~~

~~3.2.~~3.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule specified in Conditions 3.3.b through 3.3.e ~~or Conditions 3.4.b through 3.5~~ that remains in effect from a previous permit.

~~3.3.~~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 3.2 ~~or Condition 3.5.c(ii)~~, observe the exhausts of EU IDs 96, 107-111, 114, and 147-149 according to the following criteria:

~~(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 3.4.~~

~~(ii)~~(i) Except as provided in Condition 3.3.a(iii), for any of EU IDs 96, 107-111, 114, and 147-149, observe exhaust within six months after the effective date of this permit.

~~(iii)~~(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 3.3.e, after the First Method 9 observation:

[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.

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

~~b.~~a. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 3.3.a, perform observations at least once in each calendar month that the emissions unit operates.

~~c.~~b. Semiannual Method 9 Observations. After at least three monthly observations under Condition 3.3.b unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations:

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

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

~~d.~~c. Annual Method 9 Observations. After at least two semiannual observations under Condition 3.3.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations:

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

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

~~e.~~d. 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 3.3.b, and continue monitoring in accordance with the Method 9 Plan.

~~3.4. **Smoke/No Smoke Plan.** Observe the emissions unit exhaust for the presence or absence of visible emissions, excluding condensed water vapor.~~

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

~~. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 3.4.a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.~~

~~. Smoke Observed. If visible emissions are observed, comply with Condition 3.5.~~

~~**Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 3.4, then the Permittee shall either begin the Method 9 Plan of Condition 3.3 or~~

~~. Initiate actions to eliminate visible emissions from the emissions unit within 24 hours of the observation;~~

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

~~. After completing the actions required under Condition 3.5.a,~~

~~( ) conduct smoke/no smoke observations in accordance with Condition 3.4~~

~~( ) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 3.4.a is completed; and~~

~~( ) continue as described in Condition 3.4.b; or~~

~~( ) if the actions taken under Condition 3.5.a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 3.5.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 3.4.a.~~

[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. If using the Smoke/No Smoke Plan of Condition 3.4, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:~~

~~. the date and time of the observation;~~

~~. the EU ID of the emissions unit observed;~~

~~. whether visible emissions are present or absent in the emissions unit exhaust;~~

~~. a description of the background to the exhaust during the observation;~~

~~. if the emissions unit starts operation on the day of the observation, the startup time of the emissions unit;~~

~~. name and title of the person making the observation; and~~

~~. operating rate (load or fuel consumption rate or best estimate, if unknown).~~

~~4.10.~~4.2. The records required by Conditions 4.1 ~~and 4.2~~ 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 86 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 86 for the period covered by the report:

a. which visible emissions plan of Condition 3 was used for each emissions unit; if more than one plan was used, give the time periods covered by each plan;

b. for all Method 9 Plan observations:

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

(ii) a summary to include:

(A) number of days observations were made;

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

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

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

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

5.3. Report under Condition 85:

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 by Condition 6.2 may be kept in electronic format.

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

6.5. Include the following in the operating report required by Condition 86 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 85

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 87 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)]

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

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 EU IDs 107-111, 114, 148, and 149, monitor, record, and report in accordance with Conditions 8 through 10.

7.2. For 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 if actual emissions remain less than the significant emissions threshold in 18 AAC 50.326(e), monitor, record, and report in accordance with Condition 1.3~~, the Permittee must annually certify compliance under Condition 87 for the PM emissions standard based on reasonable inquiry~~.

7.4. For EU IDs 103 and 104, the Permittee shall comply with Condition 1.4.

7.5. For EU IDs 101 and 102, the Permittee shall comply with Condition 1.5.

7.6. For 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 and Turbines (EU IDs 107-111, 114, 148, and 149)

8. PM Monitoring. The Permittee shall conduct source tests on 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 3.3 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 3.3 results in an 18-minute average opacity greater than

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

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

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 3.3) 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 86, 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 85:

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 3.3 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 3.3) 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 86, 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 85 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 87 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 85 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)]

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. Sulfur Compound Monitoring, Recordkeeping, and Recordkeeping. To demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel oil according to Conditions 29 through 30.

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

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

17. Sulfur Compound Monitoring. To demonstrate compliance with Condition 15, the Permittee shall monitor, record, and report the sulfur content in the fuel gas according to Condition 31.

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

Preconstruction Permit [8] Requirements

Ambient Air Quality Protection Requirements

[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.
[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.

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) Alaska Ambient Air Quality Standards (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 height indicated in Table C.

Table C – Minimum Stack Heights

EU ID	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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Limits to Protect the Annual NO_2, PM-2.5; and 24-hour PM-10, PM-2.5 Standards

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 emissions standards for 40 C.F.R. 60 Subpart IIII for Tier 4i engines.

Monitor, record, and report as follows:

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

19.4. Report in the operating report required by Condition 86, for each month covered in the report, a statement certifying that EU IDs 114-116 did not operate outside the airstrip.

19.5. 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. Make the certifications, test results, or data available to Department personnel on request. The records may be kept in electronic format.

19.6. Report as excess emissions and permit deviation as described in Condition 85, if Conditions 19.1 and 19.2 were not met.

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

Limits to Protect the Annual NO_2 and PM-2.5 Standards

20. The Permittee shall limit the combined hours of operation out of $SoLoNO_x$ mode[9] per 12 consecutive month period as follows:

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

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

Monitor, record, and report as follows:

20.3. Monitor and record, monthly, the number of hours,

a. EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas; and

b. EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD.

20.4. Calculate and record, monthly, the combined hours of operation out of $SoLoNO_x$ 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.

20.5. Report in the operating report required by Condition 86, for each month covered in the report, the combined hours of operation for each previous 12 consecutive month period for:

a. EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas; and

b. EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD.

20.6. Report as excess emissions and permit deviation as described in Condition 85, whenever the combined operating hours of EU IDs 101-104, out of $SoLoNO_x$ mode, exceed any of the limits in Condition 20.1 or 20.2.

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

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

21. The Permittee shall limit the combined hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD to no more than 4,000 hours[10] per 12 consecutive month period.

Monitor, record, and report as follows:

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

21.2. Calculate and record, monthly, the hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD during the previous 12 consecutive month period.

21.3. Report in the operating report required by Condition 86 for each month covered in the report, the total hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD for the previous 12 consecutive month period.

21.4. Report as excess emissions and permit deviation as described in Condition 85 whenever the hours of operation of EU IDs 103 and 104 in $SoLoNO_x$ mode when firing ULSD in any 12 consecutive month period, exceed the limit in Condition 21.

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

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

22. 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:

22.1. Install, maintain, and operate a non-resettable hour meter on each of EU IDs 107-109;

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

22.3. ~~By the end of each calendar month, calculate~~ 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.

22.4. Report in the operating report required by Condition 86 for each month covered in the operating report the total number of hours for each month and the 12 consecutive month period that EU IDs 107-109 operated as recorded under Condition 22.3; and

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

22.5. Report as excess emissions and permit deviation as described in Condition 85 whenever the combined operating hours for EU IDs 107-109, in any 12 consecutive month period, exceed the limit in Condition 22, or if Conditions 22.1 through 22.4 are not met.

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

23. 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:

23.1. ~~By the end of each calendar month, calculate~~ 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.

23.2. Report in the operating report required by Condition 86 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; and

23.3. Report as excess emissions and permit deviation as described in Condition 85 whenever the hours of operation for EU ID 114, in any 12 consecutive month period, exceed the limit in Condition 23.

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

24. 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:

24.1. Monitor and record, monthly, the number of hours EU IDs 101-104 operated out of $SoLoNO_x$ mode when firing fuel gas as required by Condition 20.3.a;

24.2. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated out of $SoLoNO_x$ mode when firing ULSD as required in Condition 20.3.b;

24.3. Monitor and record, monthly, the number of hours EU IDs 101 and 102 operated in $SoLoNO_x$ mode;

24.4. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated in $SoLoNO_x$ mode when firing fuel gas;

24.5. Monitor and record, monthly, the number of hours EU IDs 103 and 104 operated in $SoLoNO_x$ mode when firing ULSD, as required in Condition 21.1;

24.6. Calculate and record, monthly, the total NO_x emissions from EU IDs 101-104 using the information recorded under Conditions 24.1 through 24.5 and the appropriate NO_x emission factors from Table D;

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

24.8. Report in the operating report required by Condition 86, for each month covered in the operating report, the 12 consecutive month total NO_x emissions as recorded under Condition 24.7; and

24.9. Report as excess emissions and permit deviation as described in Condition 85 whenever the limit in Condition 24 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 SoLoNO$_x$ mode	Provided by Permittee and Source Test Verified[11]	4.6 lb/hr
101-104	Fuel Gas	Out of SoLoNO$_x$ mode		17.0 lb/hr
103 and 104	Fuel Gas	In SoLoNO$_x$ mode		6.6 lb/hr
103 and 104	ULSD	In SoLoNO$_x$ mode		34.0 lb/hr
103 and 104	ULSD	Out of SoLoNO$_x$ mode		26.4 lb/hr

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

25. 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.

25.1. Monitor and record the inlet air temperature hourly;

25.2. Report as excess emissions and permit deviation as described in Condition 85, 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORL to Avoid PSD Classification for Carbon Monoxide (CO)

26. 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:

26.1. Monitor and record, monthly, the number of hours EU IDs 101-104 operated as required by Conditions 24.1 through 24.5;

[11] Most recent source test as of permit issuance occurred April 29 – May 4, 2018.

26.2. Calculate and record, monthly, the total CO emissions from EU IDs 101-104 using the information recorded under Conditions 24.1 through 24.5 and the appropriate CO emission factors from Table E;

26.3. 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;

26.4. Report in the operating report required by Condition 86, for each month covered in the operating report, the 12 consecutive month total CO emissions as recorded under Condition 26.3; and

26.5. Report as excess emissions and permit deviation as described in Condition 85 whenever the limit in Condition 26 is exceeded.

Table E – CO Emission Factors for EUs 101-104

EUs	Fuel	Operating Mode	Emission Factor Source	Emission Factor
101 and 102	Fuel Gas	In SoLoNO$_x$	Provided by Permittee and Source Test Verified[12]	0.52 lb/hr
101 and 102	Fuel Gas	Out of SoLoNO$_x$		51.60 lb/hr
103 and 104	Fuel Gas	In SoLoNO$_x$		1.03 lb/hr
103 and 104	Fuel Gas	Out of SoLoNO$_x$		77.40 lb/hr
103 and 104	ULSD	In SoLoNO$_x$		1.00 lb/hr
103 and 104	ULSD	Out of SoLoNO$_x$		47.25 lb/hr

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

27. 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;

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

a. In SoLoNO$_x$ mode; and

b. Out of SoLoNO$_x$ mode (the hours out of SoLoNO$_x$ mode for performance testing do not count towards the operating limit of Condition 20.1).

27.2. 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 SoLoNO$_x$ mode, (the hours burning ULSD for performance testing do not count towards the operating limit of Condition 21); and

b. Out of SoLoNO$_x$ mode (the hours out of SoLoNO$_x$ mode for performance testing do not count towards the operating limit of Conditions 20.1 and 20.2).

27.3. Report as excess emissions as described in Condition 85 if any of the emission rates determined in the source tests required by Condition 27 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 26.

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

28. 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 SoLoNO$_x$ mode and between 450°F and 1,100°F while operating out of SoLoNO$_x$ mode; or temperatures established during compliance source tests.

28.1. Report in the operating report required by Condition 86 for each month covered in the operating report the daily average outlet temperature of the catalytic bed.

28.2. Report as excess emissions as described in Condition 85 whenever the daily average outlet temperature of the catalytic bed is outside the limits specified in Condition 28, 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORL to Avoid Minor Permit Classification for SO_2

29. 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:

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

29.2. Report in the operating report required by Condition 86 that diesel fuel delivered to the stationary source during the reporting period is ULSD.

29.3. Report in the excess emission report as described in Condition 85 if any diesel fuel delivered to the stationary source during the reporting period did not meet the ULSD specifications.

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

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

30.1. Measure the ash content of a representative sample of the used oil at least twice annually (no more than 7 calendar months following the previous measurement), if the heater is being operated and the most recent previous measurement is more than 7 months old, using ASTM D482 or an appropriate alternative method adopted in 18 AAC 50.035(c). Keep records of ash content measured under Condition 30.1 for five years. The records may be kept in electronic format.

30.2. Comply with the State Particulate Matter 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 30.1).

30.3. Inspect the used oil/ULSD fuel tank within five years of the effective date of this permit 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 86.

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

30.5. Include in the operating report required by Condition 86 the information required under Conditions 30.1 and 30.4.

30.6. Report as excess emissions and permit deviation as described in Condition 85 if the used oil to ULSD ratio exceeds the limit in Condition 30.2 or if Conditions 30.1 through 30.5 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) & 50.326(j)]
[40 C.F.R. 71.6(a)]

31. Fuel Gas Hydrogen Sulfide (H_2S) Content Limits. The Permittee shall limit the H_2S content of the fuel gas fired in the turbines (EU IDs 101-104) and the high-pressure flare (EU ID 112), except for pilot and purge gas, to no more than 125 parts per million by volume (ppmv) and limit the H_2S content of all fuel gas fired in the low-pressure flare (EU ID 113) and pilot and purge in the higher-pressure flare (EU ID 112) to no more than 300 ppmv.

Monitor, record, and report as follows:

31.1. 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, or Gas Processors Association 2377-86, or an appropriate alternative method adopted in 18 AAC 50.035(c).

31.2. Keep records of the H_2S content measured under Condition 31.1 for five years. The records may be kept in electronic format.

31.3. Report in the operating report required by Condition 86 the H_2S content of the fuel gas measured under Condition 31.1.

31.4. Report in the excess emission report as described in Condition 85 if the fuel gas H_2S content measured under Condition 31.1 exceeds the limits in Condition 31 at any time.

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

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

32. Composition of Wastes Burned in Incinerators. Limit the amount of hospital wastes, medical wastes, and infectious wastes combusted in the waste incinerator (EU 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:

32.1. 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.

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

32.3. Report in the operating report required by Condition 86, the percent of hospital wastes, medical wastes, and infectious wastes in the total wastes calculated in Condition 32.2 for each calendar quarter in the reporting period.

[Condition 17, Minor Permit AQ1201MSS04, June 25, 2019]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Insignificant Emissions Units

33. For EU IDs 115, 116, 130 through 138, 152, 162, and 163, and other 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:

33.1. **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)]

33.2. **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)]

33.3. **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)]

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

a. Submit the compliance certifications of Condition 87 based on reasonable inquiry;

b. Comply with the requirements of Condition 68;

c. Report in the operating report required by Condition 86 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 33.1, 33.2, and 33.3.

[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

34. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[12] or existing facility[13] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator[14] 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]

34.1. 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]

34.2. 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]

34.3. 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: [15]

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

c. productive capacity of the facility before and after the change, and

d. the expected completion date of the change.

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

34.4. 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:

[12] *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.
[13] *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.
[14] The Department defines the "the Administrator" to mean "the EPA and the Department."
[15] 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.

35. 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~~, any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 101-104 is inoperative~~.

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

36. 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]

37. 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]

38. 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 47 and 48 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]

39. 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 42, 47, and 48. 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[16] – Compression Ignition Internal Combustion Engines (CI ICE), EU IDs 107-111, 114, 148, and 149

40. 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[17] whose construction[18] 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).

40.1. 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 40.2 through 45.

[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]

40.2. 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.

40.3. Operate and maintain the stationary CI ICE that achieve the emissions standards as required in Condition 42 over the entire life of the engine.

[16] The provisions of NSPS Subpart IIII listed in Conditions 40 through 45 are current as amended through December 4, 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.

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

[18] 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. 60.4206, 60.4209, & 60.4211(a), Subpart IIII]

41. NSPS Subpart IIII Fuel Requirements. The PermitteePermitttee shall comply with the following:

41.1. For EU IDs 107-111 and 114, the Permittee is exempt from the fuel requirements of 40 C.F.R. 60.4207.

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

41.2. 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[17], 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]

~~42.0. For stationary CI ICE subject to Subpart IIII located in remote areas of Alaska[17], the Permittee may use fuels mixed with lubricating oil, in volumes of up to 1.75 percent of the total fuel.~~

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

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

~~[18 AAC 50.040(j)(4) & 50.326(j)]~~
~~[40 C.F.R. 60.4216(f), Subpart IIII]~~

~~46.~~42. 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)]

~~46.1.~~42.1. 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 emission factors) in Table G:

Table G – Emission Standards for Non-Emergency Engines in Remote Areas of Alaska[17] Meeting Emission Standards for Emergency Engines (g/hp-hr)

EU ID	Rating	Model Year	NO_x + NMHC	CO	PM
107-109	2,695 hp	2013	4.8	2.6	0.15
114	563 hp	2012	3.0	2.6	0.15
148	400 hp	TBD	3.0	2.6	0.15
149	24.8 hp	TBD	5.6	4.9	0.6

[40 C.F.R. 60.4202(a), 60.4205(b), 60.4208(a), & 60.4216(c), Subpart IIII]
[Tables 1 & 2, Appendix I to Part 1039]

Commented [HAK1]: Two thoughts…
1. EU 148/149 could install engines that were previously installed elsewhere
2. EU 149 is installed for the purposes of Subpart IIII, but not installed for the purposes of VE observations. This might be the time to clean this up. Let's discuss.

~~46.2.~~42.2. 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	NMHC + NO_x	CO	PM
110 and 111	610 hp	2013	3.0	2.6	0.15

[40 C.F.R. 60.4205(c). 60.4202(d), & Table 4, Subpart IIII]

~~47.0. Unless EU IDs 107-111, 114, 148, and 149 are exempt per 40 C.F.R. 1039.105(a), exhaust opacity from each of EU IDs 107-109, 114, 148, and 149 must not exceed~~

~~. 20 percent during the acceleration mode;~~

~~. 15 percent during the lugging mode; and~~

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

~~[40 C.F.R. 60.4216(c), 60.4205(b), & 60.4202(a)(1)(i) & (2), Subpart IIII]~~
~~[40 C.F.R. 1039.105, Subpart B]~~

~~53.~~43. **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)]

~~53.1.~~43.1. 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) or 60.4205(b), 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 43.2.

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

~~53.2.~~43.2. 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 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]

~~53.3.~~43.3. ~~When~~ If conducting performance tests is required, exhaust emissions from the stationary CI ICE must not exceed the values in Table G and Table H with the added 1.25 or 1.5 not-to- exceed (NTE) numerical multiplier, as appropriate.

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

~~53.4.~~43.4. 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 43.4.a(i) through 43.4.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 43.4.a(i) through 43.4.a(iii), is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions 43.4.a(i) through 43.4.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 43.4.a(ii)(A) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 43.4.a(iii) counts as part of the 100 hours per calendar year allowed by this Condition 43.4.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 43.4.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]

~~53.5.~~43.5. 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]

~~54.0. If using fuels mixed with used lubricating oil as specified in Condition 41.3, comply with the following:~~

~~. Determine that the used oil to be burned for energy recovery meets the fuel specifications of 40 C.F.R. 279.11 and the sulfur content limit in Condition 41.3.a by performing approved analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.~~

~~. Keep records of the following:~~

~~( ) copies of analyses of the used oil (or other information used to make the compliance determination in Condition 43.6.a) for three years;~~

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

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

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

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

~~64.~~44. **NSPS Subpart IIII Reporting.** The Permittee shall report as follows:

~~64.1.~~44.1. 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 43.1 in the next operating report.

~~64.2. If using fuels mixed with used lubricating oil, include with the operating report required under Condition 86 a copy of the records required in Condition 43.6.b for the period covered by the report.~~

~~64.3.~~44.2. Report in accordance with Condition 85 if any of the requirements in Conditions 40 through 45 was not met.

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

~~65.~~45. NSPS Subpart IIII Deadline for Importing or Installing Stationary CI ICE in Previous Model Years. The Permittee shall comply with the following:

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

~~65.1.~~45.1. The Permittee shall not install stationary CI ICE units in previous (2007 – 2017) model years after the dates and as specified in 40 C.F.R. 60.4208(a) – (g).

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

~~65.2.~~45.2. 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]

~~65.3.~~45.3. The requirements of Condition 45 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[19] – Stationary Combustion Turbines, EU IDs 101-104

~~66.~~46. 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 (10MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005.

~~66.1.~~46.1. Comply with the applicable provisions of 40 C.F.R. 60 Subpart A and applicable provisions of Subpart KKKK as specified in Conditions 46.2 through 48.

[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)]

~~66.2.~~46.2. 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]

~~67.~~47. NSPS Subpart KKKK NO_x Standard. For EU IDs 101-104:

~~67.1.~~47.1. 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).

[19] The provisions of NSPS Subpart KKKK listed in Conditions 46 through 48 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.

[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]

~~67.2.~~47.2. **Monitoring.** The Permittee shall perform annual performance tests, no more than 14 calendar months following the previous performance test, in accordance with Condition 47.5 to demonstrate continuous compliance, as follows:

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 47.1, 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 47.1, the Permittee must resume annual performance tests, no more than 14 calendar months following the previous performance test.

[40 C.F.R. 60.4340, Subpart KKKK]

~~67.3.~~47.3. **Recordkeeping.** The Permittee shall keep records of all performance tests data in accordance with Condition 81. 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) & (c)(6)]

~~67.4.~~47.4. **Reporting.** For EU IDs 101-104, the Permittee shall submit a written report of the results of each performance test required under Conditions 47.2 and 47.5 before the close of business on the 60th day following the completion of the performance test and in accordance with Condition 79.

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

~~67.5.~~47.5. **Performance Tests.** The Permittee shall conduct NO_x performance tests, as provided in Conditions 47.2.a and 47.2.b.

a. The Permittee may use either one of the two methodologies described below in Conditions 47.5.a(i) or 47.5.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:

$$EE = \frac{(1.194 \times 10^{-7}) \times (NNOO_{xx})_{ee} \times (QQ_{ssssss})}{PP}$$

Where:

E	=	NO_x emission rate, in lb/MWh
1.194×10^{-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 47.5.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 test, 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 47 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 47.

f. The inlet air temperature[20] must be greater than 0 °F during the performance test.

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

~~68.~~48. **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)]

[20] 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 47.5.f requires that the inlet air temperature of EUs 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. 71.6(a)(1)]
[40 C.F.R. 60.4330(a)(2), Subpart KKKK]

~~68.1.~~48.1. **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]

~~68.2.~~48.2. **Recordkeeping.** Keep records of fuel demonstrations required by Condition 48.1, and in accordance with Condition 81. 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)]

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

NESHAP Subpart A – General Provisions

~~69.~~49. **NESHAP Subpart A Applicability.** The Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in

~~69.1.~~49.1. Table 8 to NESHAP Subpart ZZZZ for EU IDs 107-111, 114, 148, and 149 listed in Table A.

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

NESHAP Subpart ZZZZ[21] – Stationary RICE, EU IDs 107-111, 114, 148, and 149

~~70.~~50. **NESHAP Subpart ZZZZ Applicability.** The Permittee shall comply with applicable requirements for new[22] (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.

~~70.1.~~50.1. 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 40 through 45. 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(c), 63.6590(a)(1)(iii), (a)(2)(iii) & (c)(1), & 63.6605(a), Subpart ZZZZ]

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

Subpart A – General Provisions & Subpart M – Asbestos

~~71.~~51. 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

~~72.~~52. **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 26.

[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

~~73.~~53. 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)]

~~73.1.~~53.1. **Risk Management Plan (RMP) Requirements.** As part of the Annual Compliance Certification required by Condition 87, 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]

[21] The provisions of NESHAP Subpart ZZZZ listed in Condition 50 are current as amended through December 4, 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.

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

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

~~74.~~54. **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]

~~75.~~55. **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]

~~76.~~56. **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

~~77.~~57. 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).

~~77.1.~~57.1. 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).

~~77.2.~~57.2. 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).

~~77.3.~~57.3. 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

~~78.~~58. 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)]

~~79.~~59. 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)]

~~80.~~60. 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)]

~~81.~~61. **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]

~~82.~~62. **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:

~~82.1.~~62.1. potential to emit of 728 TPY; or

~~82.2.~~62.2. 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]

~~83.~~63. **Assessable Emission Estimates.** The Permittee shall comply as follows:

~~83.1.~~63.1. 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 62.2. 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/.

~~83.2.~~63.2. 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.

~~83.3.~~63.3. 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.

~~83.4.~~63.4. 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 62.1.

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

~~84.~~64. 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):

~~84.1.~~64.1. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

~~84.2.~~64.2. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and

~~84.3.~~64.3. 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)]

~~85.~~65. 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)]

~~86.~~66. 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.

~~86.1.~~66.1. 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 66.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

~~86.2.~~66.2. The Permittee shall report according to Condition 68.3.

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

~~87.~~67. **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)]

~~88.~~68. **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)]

~~88.1.~~68.1. **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 68.

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 68; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 68.

~~88.2.~~68.2. **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 68; and

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

~~88.3.~~68.3. **Reporting.** The Permittee shall report as follows:

a. With each stationary source operating report under Condition 86, 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 85.

~~89.~~69. **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[23] listed in Conditions 42, 47, 48, or 54 (refrigerants), the Permittee shall

~~89.1.~~69.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and

~~89.2.~~69.2. report in accordance with Condition 85.1.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

~~90.~~70. **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:

[23] 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.

~~90.1.~~70.1. 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

~~90.2.~~70.2. Include this condition in the annual certification required under Condition 87.

[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

~~91.~~71. **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)]

~~92.~~72. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b)]

~~92.1.~~72.1. at a point or points that characterize the actual discharge into the ambient air; and

~~92.2.~~72.2. 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.

~~93.~~73. **Reference Test Methods.** The Permittee shall use the following test methods when conducting source testing for compliance with this permit:

~~93.1.~~73.1. 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]

~~93.2.~~73.2. 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]

~~93.3.~~73.3. 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]

~~93.4.~~73.4. 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)]

~~93.5.~~73.5. 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]

~~93.6.~~73.6. 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]

~~93.7.~~73.7. 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]

~~94.~~74. **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)]

~~95.~~75. **Test Exemption.** The Permittee is not required to comply with Conditions 77, 78, and 79 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.3) ~~or Smoke/No Smoke Plan (Condition 3.4)~~.

[18 AAC 50.345(a)]

~~96.~~76. **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)]

~~97.~~77. **Test Plans.** Except as provided in Condition 75, 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 71 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)]

~~98.~~78. **Test Notification.** Except as provided in Condition 75, 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)]

~~99.~~79. **Test Reports.** Except as provided in Condition 75, 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 82. 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)]

~~100.~~80. **Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 7 and 33.2, 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:

Commented [HAK2]: This equation looks like there is a formatting issue. Is the equation okay in the PDF doc?

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

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

~~101.~~81. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

~~101.1.~~81.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and

~~101.2.~~81.2. 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

~~102.~~82. **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.

~~102.1.~~82.1. 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)]

~~103.~~83. **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.

~~103.1.~~83.1. 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)]

~~104.~~84. **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)]

~~105.~~85. **Excess Emissions and Permit Deviation Reports.** The Permittee shall report excess emissions and permit deviations as follows:

~~105.1.~~85.1. **Excess Emissions Reporting.** Except as provided in Condition 68, 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 85.1.d.

d. Report all other excess emissions not described in Conditions 85.1.a, 85.1.b, and 85.1.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 86 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)]

~~105.2.~~85.2. **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 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 86 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)]

~~105.3.~~85.3. **Notification Form.** When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at the Division of Air Quality's Air Online Services (AOS) system webpage http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option, or, if the Permittee prefers, the form contained in Section 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)]

~~106.~~86. **Operating Reports.** During the life of this permit[24], the Permittee shall submit to the Department an operating report in accordance with Conditions 82 and 83 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.

~~106.1.~~86.1. 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.

~~106.2.~~86.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 86.1, the Permittee shall identify

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

b. the equipment involved;

c. the permit condition affected;

[24] *Life of this permit* is defined as the permit effective dates, including any periods of reporting obligations that extend beyond the permit effective dates. For example, if a permit expires prior to the end of a calendar year, there is still a reporting obligation to

provide operating reports for the periods when the permit was in effect.

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

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

~~106.3.~~86.3. When excess emissions or permit deviation reports have already been reported under Condition 85 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.

~~106.4.~~86.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 3.3.e, ~~3.4.c,~~ 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.

~~106.5.~~86.5. **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)]

~~107.~~**87. 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 83.

~~107.1.~~87.1. 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.

~~107.2.~~87.2. **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.

~~107.3.~~87.3. 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)]

~~108.~~88. **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:

~~108.1.~~88.1. **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.

~~108.2.~~88.2. **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 88.1.

~~108.3.~~88.3. For reporting under Condition 88.2, the Permittee shall report the annual emissions and the required data elements under Condition 88.4 every third year for the previous calendar year as scheduled by the EPA.[25].

~~108.4.~~88.4. For each emissions unit and the stationary source, include in the report the required data elements[26] 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.

~~108.5.~~88.5. 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]

~~109.~~89. **NSPS and NESHAP Reports.** The Permittee shall comply with the following:

[25] 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.).

[26] 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.

~~109.1.~~89.1. **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 86 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.

~~109.2.~~89.2. **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

~~110.~~90. **Permit Applications and Submittals.** The Permittee shall comply with the following requirements for submitting application information to the EPA:

~~110.1.~~90.1. 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;

~~110.2.~~90.2. 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;

~~110.3.~~90.3. 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

~~110.4.~~90.4. 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)]

~~111.~~91. **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)]

~~112.~~92. **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:

~~112.1.~~92.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;

~~112.2.~~92.2. 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;

~~112.3.~~92.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f);

~~112.4.~~92.4. 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)]

~~113.~~93. **Operational Flexibility.** The Permittee may make CAA Section 502(b)(10)[27] 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).

~~113.1.~~93.1. The Permittee shall provide EPA and the Department with a written notification no less than seven days in advance of the proposed change.

~~113.2.~~93.2. For each such change, the notification required by Condition 93.1 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.

~~113.3.~~93.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 93.

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

~~114.~~94. **Permit Renewal.** To renew this permit, the Permittee shall submit to the Department[28] 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)]

[27] 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.

[28] 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

~~115.~~95. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

~~115.1.~~95.1. included and specifically identified in the permit; or

~~115.2.~~95.2. determined in writing in the permit to be inapplicable.

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

~~116.~~96. 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

~~116.1.~~96.1. an enforcement action;

~~116.2.~~96.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

~~116.3.~~96.3. denial of an operating permit renewal application.

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

~~117.~~97. 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)]

~~118.~~98. 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)]

~~119.~~99. 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

~~119.1.~~99.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

~~119.2.~~99.2. have access to and copy any records required by the permit;

~~119.3.~~99.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

~~119.4.~~99.4. 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.

~~120.~~**100.** Nothing in this permit shall alter or affect the following:

~~120.1.~~100.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or

~~120.2.~~100.2. 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)]

~~121.~~**101.** 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 CFR 60 Subparts D, Da, Db, Dc, E, Ea, Eb, Ec, F, G, Ga, H, I, J, Ja, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, VVa, WW, XX, AAA, BBB, DDD, FFF, GGG, GGGa, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, AAAA, CCCC, DDDD, EEEE, FFFF, LLLL, MMMM, QQQQ, TTTT, and UUUU	The facility is not an affected stationary source, operation, or industry.

Stationary source-wide	40 CFR 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. 60.5365(a) Gas well affected facility	HAK indicates that the gas wells at the Point Thomson Production Facility stationary source (Central Pad) will not be hydraulically fractured. 40 CFR 60.5430 defines 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[29] 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 CFR 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 OOOO does not include standards for oil and conventional natural gas wells that are not hydraulically fractured.***" [30] The gas wells at Central Pad are not affected facilities under 40 C.F.R. 60.5365(a) and are therefore not subject to the applicable provisions of 40 C.F.R. 60 Subpart OOOO.
Stationary source-wide	40 C.F.R. 60.5365(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.'* HAK indicates that centrifugal compressors will not be installed at Central Pad.

[29] See: http://doa.alaska.gov/ogc/annual/current/18_Oil_Pools/Point%20Thomson%20-%20Oil/1_Oil_1.htm
[30] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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.

Stationary source-wide	40 C.F.R. 60.5365(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.'* The definitions that apply to Subpart OOOO are listed under 40 C.F.R. 60.5340. The following subset to those definitions is relevant to this discussion: Compressor station: *'any permanent combination of one or more compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.'* Custody transfer: *'the transfer of natural gas after processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation.'* Field gas gathering: *'the system used transport field gas from a field to the main pipeline in the area.'* Natural gas processing plant: *'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.'* Well: *'an oil or gas well, a hole drilled for the purpose of producing oil or gas, or a well into which fluids are injected.'* Wellhead: *'the piping, casing, tubing and connected valves protruding above the earth's surface for an oil and/or natural gas well. The wellhead ends where the flow line connects to a wellhead valve.'* Well site: *'one or more areas that are directly disturbed during the drilling and subsequent operation of, or affected by, production facilities directly associated with any oil well, gas well, or injection well and its associated well pad.'* Central Pad is a well site as defined by 40 C.F.R. 60.5340. In accordance with 40 C.F.R. 60.5365(c), a reciprocating compressor located at a well site is not an affected facility under Subpart OOOO.

Stationary source-wide	40 C.F.R. 60.5365(d)(1) - (3) Pneumatic controllers	40 C.F.R. 60.5365(d)(1) - (3) 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) Storage vessels	40 C.F.R. 60.5365(e) describes 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.
Stationary source-wide	40 C.F.R. 60.5365(f) Process units	A process unit is defined under 40 C.F.R. 60.5430 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 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).*" [31] In accordance with 40 C.F.R. 60.5365(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), pumps in light liquid service, valves in gas/vapor and light 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), and 60.5401(b)(1) per 40 CFR 60.5401(e).
Stationary source-wide	40 C.F.R. 60.5365(g) Sweetening units	HAK indicates that sweetening units will not be installed at Central Pad.

[31] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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

Stationary source-wide	40 C.F.R. 60.5365(h) Hydraulically refractured gas well affected facilities.	HAK indicates that the gas wells at Central Pad will not be hydraulically fractured. 40 CFR 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 CFR 60.5365(h) because they will not conduct well completion operations following hydraulic fracturing or refracturing.
Stationary source-wide	40 CFR 60 Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015. 40 C.F.R. 60.5365a(a) Well affected facility	HAK indicates that the wells at Central Pad will not be hydraulically fractured. 40 CFR 60.5430a defines 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 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 CFR 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 CFR 60.5365a(a) because they will not conduct well completion operations following hydraulic fracturing or refracturing.
Stationary source-wide	40 C.F.R. 60.5365a(b) Centrifugal compressor affected facility	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 compressor will not be installed at Central Pad.

Stationary source-wide	40 C.F.R. 60.5365a(c) Reciprocating compressors	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.* The Central Pad is a well site as defined under 40 CFR 60 Subpart OOOOa. It contains two gas injection wells and one liquid waste injection well. Therefore, compressors located at the stationary source are not affected sources.
Stationary source-wide	40 C.F.R. 60.5365a(d)(1) & (2) Pneumatic controllers	HAK indicates that natural gas-driven pneumatic controllers will not be installed at the Central Pad.
Stationary source-wide	40 C.F.R. 60.5365a(e) Storage vessels	Under 40 CFR 60 Subpart OOOOa, storage vessel affected facilities are storage vessels that are installed or used for the first time (constructed) on or after September 18, 2015, contain an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and have potential for VOC emissions equal or greater than six tpy. HAK indicates that no tanks at Central Pad are storage vessel affected facilities under Subpart OOOOa. 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 Subpart OOOOa.

Stationary source-wide	40 C.F.R. 60.5365a(f) Process units	A process unit is defined under 40 CFR 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. 60.5430a 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. 60.5365a(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. 60.5401a(e), pumps in light liquid service, valves in gas/vapor and light 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), and 60.5401a(b)(1) per 40 CFR 60.5401a(e).
Stationary source-wide	40 C.F.R. 60.5365a(g) Sweetening units	HAK indicates that sweetening units will not be installed at Central Pad.
Stationary source-wide	40 C.F.R. 60.5365a(h)(1) & (2) Pneumatic pumps	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	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 CFR 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.

[32] See "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 40 CFR 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

Stationary source-wide	40 C.F.R. 60.5365a(j) Fugitive emissions	HAK indicates that three compressors, two injection and one flash gas, will be installed at Central Pad. 40 CFR 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.
Stationary source-wide	40 CFR 61 Subpart B, C, D, E, F, H, I, J, K, L, M, N, O, P, Q, R, T, V, W, Y, BB, and FF	No affected facility within the stationary source.
Stationary source-wide	40 CFR 63 Subpart B, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, RRRRR, SSSSS, TTTTT, UUUUU, WWWWW, YYYYY, ZZZZZ, BBBBBB, CCCCCC, DDDDDD, EEEEEE, FFFFFF, GGGGGG, HHHHHH, JJJJJJ, LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP, QQQQQQ, RRRRRR, SSSSSS, TTTTTT, VVVVVV, WWWWWW, XXXXXX, YYYYYY, ZZZZZZ, AAAAAAA, BBBBBBB, CCCCCCC, DDDDDDD, EEEEEEE, and HHHHHHH	The facility does not contain an affected stationary source, operation or industry.
	40 CFR 65, Subparts A, C, D, E F, and G	The facility is not an affected facility within the stationary source.

	40 CFR 90, Subparts A, B, C, D, E, F, G, H, I, J, K, L, and M	The facility will not manufacture or import engines.
	40 CFR 91, Subparts A, B, C, D, E, F, G, H, I, J, K, L, M, and N	The facility will not manufacture or import engines.
	40 CFR 96, Subparts A, B, C, D, E, F, G, H, I, AA, BB, CC, EE, FF, GG, HH, II, AAA, BBB, CCC, FFF, GGG, HHH, III, AAAA, BBBB, CCCC, EEEE, FFFF, GGGG, HHHH, and IIII	Alaska does not have or participate in a NO_x or SO_2 Trading Program.
	40 CFR 97, Subparts A, B, C, D, E, F, G, H, I, J, AA, BB, CC, EE, FF, GG, HH, II, AAA, BBB, CCC, FFF, GGG, HHH, III, AAAA, BBBB, CCCC, EEEE, FFFF, GGGG, HHH, IIII, AAAAA, BBBBB, CCCCC, and DDDDD	Alaska does not have or participate in a NO_x or SO_2 Trading Program.
	40 CFR 98, Subparts C, 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	The facility is not an affected facility within the stationary source.
	40 CFR 1036, Subparts A, B, C, E, F, G, H, and I	The facility will not manufacture or import engines.
	40 CFR 1037, Subparts A, B, C, E, F, G, H, and I	The facility will not manufacture or import engines.
	40 CFR 1043	The facility is not an affected stationary source, operation or industry.
	40 CFR 1045, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or fuel systems.
	40 CFR 1048, Subparts A, B, C, D, E, F, G, and I	The facility will not manufacture engines.
	40 CFR 1051, Subparts A, B, C, D, F, G, H, and I	The facility will not manufacture engines.
	40 CFR 1054, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or engine components.
	40 CFR 1060, Subparts A, B, C, D, E, F, G, H, and I	The facility will not manufacture engines or fuel systems.
	40 CFR 1065, Subparts A, B, C, D, E, F, G, H, I, J, K, and L	The facility is not an affected stationary source, operation or industry.
	40 CFR 1066, Subparts A, B, C, D, E, F, G, H, I, J, and K	The facility is not an affected stationary source, operation or industry.

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. Notification Form[33]

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

AQ1201TVP02 — **Air Quality Permit Number.**

Hilcorp Alaska, LLC — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

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

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

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

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

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

☐ Excess Emissions - Complete Section 1 and Certify

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

☐ Deviation from Permit Conditions - Complete Section 2 and Certify

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

☐ Deviation from COBC[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 82.)*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

If submitted online, report must be submitted by an authorized E-signer for the stationary source (according to Condition 82).

[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 review of ambient air issues.

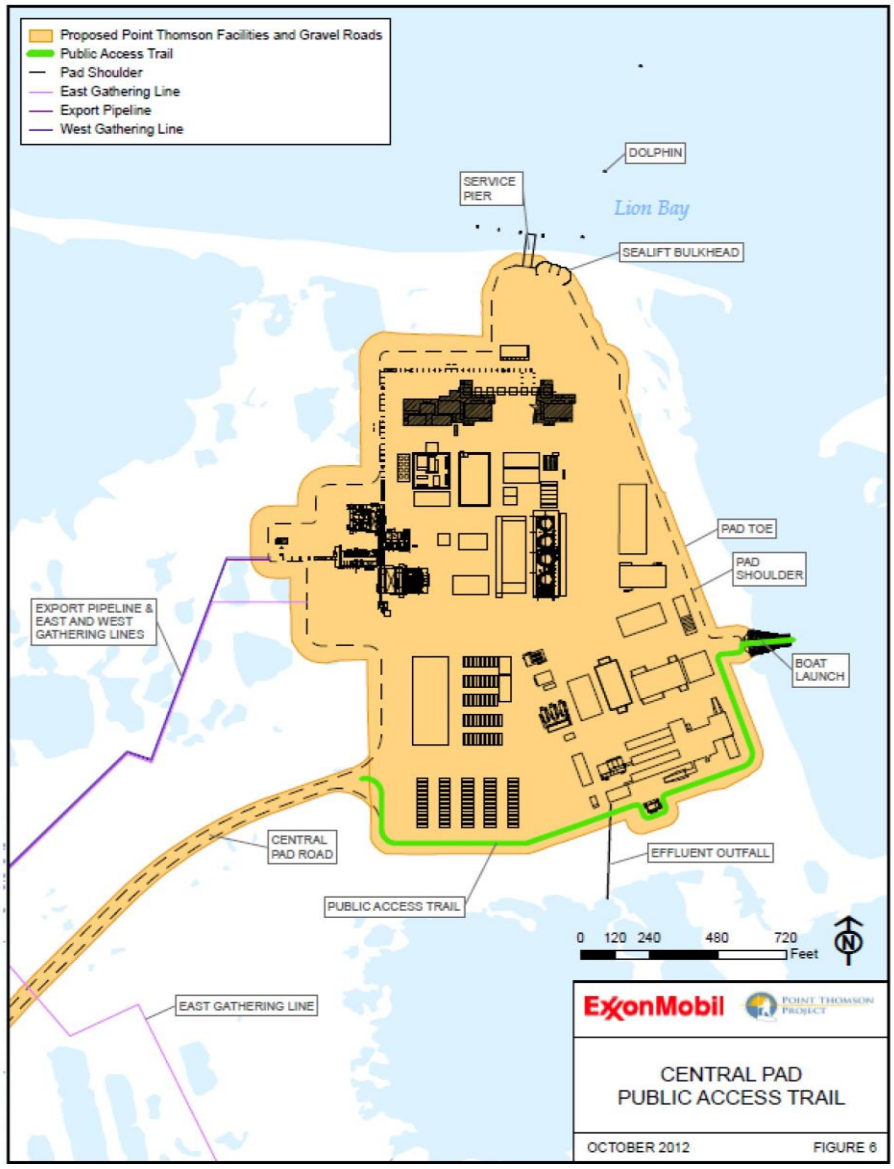
Public access to Central Pad will be controlled by a security office. The land within the ambient air quality boundary encompasses Central Pad. Access to Central Pad is from a road which connects Central Pad to the airstrip. The security office is located on the road at the entrance to Central Pad. The 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 SoLoNO$_x$ mode and between 450°F and 1,100°F while operating out of SoLoNO$_x$ 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 SoLoNO$_x$ mode. The outlet temperature of the catalytic oxidation system ranges between 450°F and 1,100°F while the turbines operate out of SoLoNO$_x$ 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).

Alaska Department of Environmental Conservation
Air Permits Program

[Public Comment - January 23, 2023]

Hilcorp Alaska, LLC
Point Thomson Production Facility

STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ1201TVP02

Prepared by Joshua Klina
ADEC AQ/APP (Juneau)
Reviewed by Dave Jones
ADEC AQ/APP (Juneau)

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ1201TVP02.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ1201TVP02 contains information on the stationary source as provided in the Title V permit application with the change in operator ~~some adjustments made to reflect changes~~ made in Operating Permit No. AQ1201TVP02 Revision 4, which was issued after the application for Operating Permit No. AQ1201TVP02 had been submitted.

The Point Thomson Production Facility is jointly owned by Hilcorp North Slope, LLC (HNS) and ExxonMobil Alaska Production Inc. (EMAP). The stationary source is operated by Hilcorp Alaska, LLC (HAK), who is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 1311 - Crude Petroleum and Natural Gas.

The stationary source is permitted as a gas cycling operation to process approximately 200 million standard cubic feet-per-day of gas in order to recover approximately 10,000 barrels-per-day of hydrocarbon condensate. The recovered hydrocarbon condensate product is sent to market via pipeline. The collected gas is used as fuel gas in the combustion turbines and the unburned gas is re-injected in the field reservoir. Equipment permitted at the Point Thomson Production Facility includes two fuel gas-fired turbines, two dual fuel-fired turbines, one waste incinerator, two flares, 16 heaters, two stationary fire water pump engines, six stationary generator engines, and 38 nonroad engines.

The Point Thomson Production Facility stationary source includes the Central Pad, the airstrip, the water access pad, and the Alaska State C-1 Pad. The Point Thomson Production Facility stationary source does not include the West Pad, the East Pad, the gravel mines, the off-pad pipelines, the gravel roads, and the ice roads.

EMISSIONS UNIT INVENTORY AND DESCRIPTION

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

The emissions units at the Point Thomson Production Facility that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ1201TVP02.

Table A of Operating Permit No. AQ1201TVP02 contains information on the emissions units regulated by this permit as provided in the application. Table B of Operating Permit No. AQ1201TVP02 contains information on the emissions units classified as nonroad engines (NREs). These tables are provided for informational and identification purposes only. Specifically, the emissions unit rating/size provided in these tables are not intended to create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE as indicated in the application from the Point Thomson Production Facility is shown in the table below.

Table J - Emissions Summary, in Tons Per Year (TPY)

Emissions	NO_x	CO	PM_{10}	SO_2	VOC	CO_2e[1]	HAPs	Total[2]
PTE	245.5	243.3	19.4	32.3	187.7	217,835.8	5.6	728.2
Assessable PTE	246	243	19	32	188	0	0	728

Notes:

1. CO_2e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential.
2. Total PTE and total assessable PTE shown in the table do not include CO2e and HAPs.
3. HAP emissions are a subset of either VOC emissions or PM_{10} emissions and are excluded from the assessable emissions total to avoid double counting.

The assessable PTE listed under Condition 62.1 is the sum of the PTE of each individual air pollutant, other than greenhouse gases (GHGs). The emissions listed in Table J are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the stationary source.

For criteria pollutants, GHGs, and Hazardous Air Pollutants (HAPs), emissions are as provided in the operating permit application and supplement.

Worst case potential emissions are used for the combustion turbines. Higher potential Carbon Monoxide (CO) emissions result from the dual fuel-fired turbines firing fuel gas than ultra-low sulfur diesel (ULSD) in $SoLoNO_x$ mode. Potential particulate matter (PM) emissions are listed when the turbines are operating in $SoLoNO_x$ mode, because there is no separate PM emission factor for out of $SoLoNO_x$ mode. Higher potential VOC emissions result from the dual fuel-fired turbines firing ULSD than fuel gas, in or out of $SoLoNO_x$ mode. Emission factors for turbines firing out of $SoLoNO_x$ mode are taken from Table B-12a through B-14b of the application for Minor Permit AQ1201MSS03 Revision 5 (50% or 25% load, whichever gives a higher emission factor), except for NO_x and CO. NO_x emission factors provided by the Permittee in the application were based on vendor data and the 2016 and 2018 source test results.

Each turbine has a catalytic oxidizer to reduce the vendor-provided CO emission factors by 90-percent in $SoLoNO_x$ mode and 85-percent out of $SoLoNO_x$ mode. The catalytic oxidizers control 50-percent of VOC emissions while firing on fuel gas in $SoLoNO_x$ mode and 48-percent of VOC emissions while firing on ULSD in $SoLoNO_x$ mode. The catalytic oxidizers control five percent of VOC emissions, regardless of fuel, while operating out of $SoLoNO_x$ mode. VOC emissions are assumed to be 20-percent of the un-burnt hydrocarbon emissions when firing fuel gas and 100-percent un-burnt hydrocarbon emissions while firing ULSD. CO emission factors have been verified by source tests conducted in 2018. CO emission factors provided by the Permittee in the application were based on vendor data and the 2018 source test results.

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

BASIS FOR REQUIRING AN OPERATING PERMIT

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

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

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

The Permittee is required to obtain an operating permit for the Point Thomson Production Facility as specified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a), because the stationary source is:

- A major source. This stationary source is a major source because
  - as defined in Section 302 of the CAA, it directly emits, or has the potential to emit, 100 TPY or more of any air pollutant subject to regulation.

AIR QUALITY PERMITS

Permits to Operate

No previous air quality control permit-to-operate exists for this stationary source.

Title I (Construction and Minor) Permits

Permit No. AQ1201ORL01. On January 20, 2008, the Department issued owner requested limit (ORL) through Permit No. AQ1201ORL01 to authorize Exxon Mobil Corporation (ExxonMobil)'s establishment of an operation camp and drill rigs at the Point Thomson East, West, and Central Pads. This ORL limited the emissions of criteria pollutants from 15 EUs that were authorized to operate at the camp to less than the minor permit thresholds listed in 18 AAC 50.502(c)(1).

Minor Permit No. AQ1201MSS01. On May 26, 2010, the Department issued Minor Permit No. AQ1201MSS01 to authorize a larger drilling effort at Central Pad. The EUs authorized under this Minor Permit included drill rigs, boilers, heaters, a flare, an incinerator, storage tanks, and non-road engines. Minor Permit No. AQ1201MSS01 also established ORLs to avoid classifying the drilling project as a prevention of significant deterioration (PSD) Major Source.

ExxonMobil asked the Department to rescind Minor Permit No. AQ1201MSS01 in April 2011. In a May 2011 response letter to ExxonMobil, the Department rescinded that permit and stated that any restart or continued operation of the EUs will be treated as new construction under applicable provisions of AS 46.14 and 18 AAC 50.

Construction Permit No. AQ1201CPT01. ExxonMobil submitted a PSD permit application for developing a Central Pad production facility on July 19, 2011. On August 20, 2012, the Department issued Construction Permit No. AQ1201CPT01. The project triggered PSD review for

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

NO_x, CO, particulate matter with an aerodynamic diameter of 2.5 microns or less (PM-2.5), and GHGs. Construction Permit No. AQ1201CPT01 authorized the installation and operation of several turbines, pumps, incinerators, generators, boilers, heaters, reciprocating internal combustion engines (RICEs), and drilling EUs to support construction, drilling, and production operations. The permit also included ambient limits for protecting the ambient air quality standards and increments for pollutants that triggered PSD and an ORL for avoiding a PSD permit for SO_2.

Construction Permit No. AQ1201CPT02. In November 2012, ExxonMobil submitted a revised PSD permit application which incorporated revised engineering specifications, changes to the EU inventory, and increased operational flexibility. The revised project triggered PSD review for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10), in addition to the previously triggered pollutants. The Department treated the revised application as a change in project scope and on June 12, 2013, rescinded Construction Permit No. AQ1201CPT01 and issued Construction Permit No. AQ1201CPT02. The revision also incorporated 40 C.F.R. 60 Subpart OOOO, NSPS Requirement for Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution because the rule became effective on October 15, 2012. Additionally, the revision included 40 C.F.R. 63 Subpart JJJJJJ, NESHAPs. While NESHAP standards are not required to be included in a construction permit, ExxonMobil requested them to be included.

Construction Permit No. AQ1201CPT03. In December 2013, ExxonMobil submitted a PSD permit application which incorporated additional changes to the project scope. The revisions triggered PSD review for the previously triggered pollutants, as well as volatile organic compounds (VOCs). ExxonMobil maintained their ORL to avoid PSD review for SO_2. On August 7, 2014, the Department rescinded Construction Permit No. AQ1201CPT02 and issued Construction Permit No. AQ1201CPT03.

In a non-related case, the U.S. Supreme Court ruled on June 23, 2014 that GHG emissions may not be used to trigger PSD review (Case No. 12-1146). The Department was aware of this decision prior to issuing Construction Permit No. AQ1201CPT03 but was unable to incorporate the ramifications into its final decision. However, it was clear that the decision was substantive and would likely lead to additional revisions to the Central Pad project scope and permitting strategy. As a result of this ruling, the Central Pad development project would only trigger PSD review due to the NO_x emissions. The emissions of all other PSD-triggering pollutants were less than the 250 ton per year (tpy) PSD threshold.

ExxonMobil initially incorporated the Supreme Court decision in a PSD permit application that they submitted on September 3, 2014 (Construction Permit Application No. AQ1201CPT04). However, they simultaneously withdrew their PSD permit application and submitted a minor permit application on December 7, 2014. Their December 7, 2014 minor permit application includes ORLs for the non-GHG pollutants (NO_x) that would otherwise trigger PSD review.

Construction Permit No. AQ1201CPT03 Revision No. 1. On January 19, 2015, ExxonMobil notified the Department of material mistakes in Construction Permit No. AQ1201CPT03. ExxonMobil identified Conditions 11.10 and 11.13 as containing material mistakes. The Department reviewed the information and concluded that Conditions 11.10 and 11.13 contained material mistakes. On January 23, 2015, the Department rescinded Construction Permit No. AQ1201CPT03 and issued Construction Permit No. AQ1201CPT03 Revision 1 to correct those material mistakes.

Minor Permit No. AQ1201MSS03. The Department issued Minor Permit No. AQ1201MSS03 on February 27, 2015. ExxonMobil notified the Department of technical errors in the permit on March 23, 2015.

Minor Permit No. AQ1201MSS03 Revision No. 1-5. Minor Permit No. AQ1201MSS03 Revision 1 was issued on March 27, 2015. Minor Permit No. AQ1201MSS03 Revisions 2, 3, and 4 were issued on March 4, 2016, June 20, 2016, and August 26, 2016, respectively. The Department issued Minor Permit No. AQ1201MSS03 Revision 5 to this stationary source on April 17, 2017.

Minor Permit No. AQ1201MSS04. The Department issued Minor Permit No. AQ1201MSS04 on June 24, 2019, while simultaneously rescinding Minor Permit No. AQ1201MSS03 Revision 5. Minor Permit No. AQ1201MSS04 includes three new heaters (EU IDs 152, 162, and 163), each smaller than 2 MMBtu/hr, and the addition of 16 new nonroad engines, EU IDs 150, 151, 153-161, and 164-168. Additionally, the minor permit allows for increased operation of the turbines EU IDs 101-104 while burning fuel gas and operating out of SoLoNO$_x$ mode, and decreased operation of the dual fuel-fired turbines EU IDs 103 and 104 while burning ULSD and operating in SoLoNO$_x$ mode. The minor permit also changed some of the NO$_x$ and CO emission factors for certain operating scenarios to rates lower than those achieved during source tests in 2016 and 2018. Additionally, the NO$_x$ PSD avoidance limit for the turbines EU IDs 101-104 decreased from 188 to 184 tons per consecutive 12-month period combined. The minor permit also contains a new ORL to restrict total CO emissions from the turbines EU IDs 101-104 to no more than 200 tons per 12 consecutive month period.

All stationary source-specific requirements established in Minor Permit No. AQ1201MSS04 are included in the Operating Permit No. AQ1201TVP02 as described in Table K

Title V Operating Permits

Under AS 46.14.190, the owner or operator has requested multiple operating permits for this stationary source.

Operating Permit No. AQ1201TVP01. EMAP submitted a complete application for Operating Permit No. AQ1201TVP01 under an August 11, 2016 cover letter. The Department received the application on August 12, 2016. The application was amended on September 13, 2016. The initial Title V Permit was issued on June 6, 2017 and incorporated terms and conditions of Minor Permit No. AQ1201MSS03 Revision 5.

- Revision No. 1: On June 21, 2017, EMAP notified the Department of a material mistake in the NSPS Subpart A applicability for EUs 112, 113, 115, 116, 130, 138, 147, and 246. The Department corrected the material mistake and issued Operating Permit No. AQ1201TVP01 Revision 1 on June 26, 2017.
- Revision No. 2: On September 13, 2017, EMAP notified the Department of an inconsistency between Condition 6.1 and the Standard Operating Permit Condition IX for visible emissions observations for the flare. The Department revised the condition to mirror the language in the standard permit condition and issued Operating Permit No. AQ1201TVP01 Revision 2 on September 15, 2017.
- Revision No. 3: On December 13, 2018, the Department received EMAP's application to make permit changes previously mentioned in Minor Permit No. AQ1201MSS04 and perform an integrated review creating a new revision to Operating Permit No.

AQ1201TVP01. On April 1, 2019, the Department received an addendum to the application with specific NO_x and CO turbine emission rates requested for the permit, as well as a discussion on the effects of EU ID 155 on the ambient air quality standards. See AQ1201MSS04 Technical Analysis Report for more details on these changes.

- Revision No. 4: On November 23, 2021, the Department received correspondence that reflected the name change of the Permittee from ExxonMobil Alaska Production Inc. (EMAP) to Hilcorp Alaska, LLC (HAK), effective on January 1, 2022. The Department found that the change in the Permittee for this stationary source is an administrative amendment as described by 40 C.F.R. section 71.7(d) adopted by reference in 18 AAC 50.040(j).

Operating Permit No. AQ1201TVP02. EMAP submitted a complete application for Operating Permit No. AQ1201TVP02 under an August 13, 2021 cover letter. The Department received the application on August 16, 2021. As mentioned previously, the Department received correspondence that reflected the name change of the Permittee from EMAP to HAK, effective on January 1, 2022. Operating Permit No. AQ1201TVP02, once issued, will reflect this change because it will be issued after January 1, 2022.

COMPLIANCE HISTORY

The stationary source commenced operations, for purposes of Title V permitting, in November 2015.

Based on a Full Compliance Evaluation report covering operations from August 20, 2012 through June 30, 2017 with an onsite visit conducted on July 31 through August 1, 2017, the stationary source was found out of compliance for six procedural violations and five excess emissions violations. Four of the five excess emissions violations were for violating the daily average temperature limits for the outlet of the catalytic bed associated with the turbines. All of these daily temperature violations were for either load shifting or cold starts of the gas cycling process, which were exempted starting with Minor Permit No. AQ1201MSS03 Revision 2. These violations have been addressed and resolved.

Based on a Full Compliance Evaluation report covering operations from April 1, 2019 through December 31, 2020 with a virtual inspection conducted on March 5, 2021, the stationary source was found out of compliance with Condition 28.1 – Fuel Gas Hydrogen Sulfide (H_2S) Content Limit found in Operating Permit No. AQ1201TVP01 Rev. 4. This condition requires the Permittee to 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 each calendar month using ASTM D 4810-06, D 4913-89, or Gas Processors Association 2377-86, or an appropriate alternative method adopted in 18 AAC 50.035(c). Samples at Point Thomson Production Facility are collected using Length-of-Stain Detector Tubes (Draeger Tubes) per ASTM D-4810-06. On July 19, 2019, the Permittee discovered that the Draeger tubes used to collect the June 2019 samples had expired at the end of May 2019. These violations have been addressed and resolved.

Based on a Full Compliance Evaluation report covering operations from January 1, 2022 through September 30, 2022 with an onsite visit conducted on March 15, 2022, the stationary source was found to be operating in compliance with Operating Permit Nos. AQ1201TVP01 Rev. 3, AQ1201TVP01 Rev. 4, Minor Permit No. AQ1201MSS04, and Alaska Air Quality Control Regulations.

Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations indicate a stationary source generally operating in compliance with its operating permit.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

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

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

- Permit to Operate issued on or before January 17, 1997 (these permits cover both construction and operations);
- Construction permits issued on or after January 18, 1997; and
- Minor permits issued on or after October 1, 2004.

Preconstruction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard conditions, generally applicable conditions, and conditions that quote or paraphrase requirements in regulation. These requirements include, but are not limited to, each emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of issuance of Operating Permit No. AQ1201TVP02.

Table K below lists the requirements carried into Operating Permit No. AQ1201TVP02 to ensure compliance with the preconstruction permit requirements.

Table K - Comparison of Minor Permit No. AQ1201MSS04 Conditions to Operating Permit No. AQ1201TVP02 Conditions[1]

AQ1201MSS04 Condition No.	Description of Requirement	AQ1201TVP02 Condition No.	How Condition was Revised
No Equivalent	State Emission Standards	1-15	State Emission Standards were not carried forward into AQ1201MSS04.
3-6	Ambient Air Quality Protection Requirements	18-21	Title V terms and conditions including specific monitoring, recordkeeping, and reporting (MR&R)
7-10	NO_x PSD Avoidance Limits	22-25	Title V terms and conditions include specific MR&R
11-13	CO PSD Avoidance Limits	26-28	Title V terms and conditions include specific MR&R
14-16	Minor Permitting Avoidance Limits for SO_2	29-31	Title V terms and conditions include specific MR&R
17	Limits to Avoid Regulation under NSPS Subpart Ec	32	Title V terms and conditions include specific MR&R

Note:

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

NON-APPLICABLE REQUIREMENTS

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

- **Incineration Units:** The Department has adopted 40 C.F.R. 60, Subpart DDDD by reference into 18 AAC 50.040(a)(LL), but has not yet developed or submitted a State plan for existing Commercial and Industrial Solid Waste Incineration (CISWI) units to the U.S. EPA in accordance with the procedures outlined within the Subpart. As of the publication date for this decision, U.S. EPA has not developed a federal plan according to 40 C.F.R. 60.27 to implement these guidelines. 40 C.F.R. 60.2545 states that this Subpart does not directly affect CISWI unit owners or operators in the State. Instead, the Subpart obligates owners and operators to comply with the State plan. Therefore, the model rule is currently not an applicable requirement for the purpose of this operating permit as defined in 40 C.F.R. 71.2.
- **40 C.F.R. 60 Subparts OOOO and OOOOa:** Subparts OOOO and OOOOa do not include standards for oil and conventional natural gas wells that are not hydraulically fractured.[3] The gas wells at Central Pad will not be hydraulically fractured, as described in the *Permit as Shield from Inapplicable Requirements* section, Section 10, of the Title V permit.

[3] 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

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 C.F.R. 71, as specified in 18 AAC 50.040(j), to establish operating permit regulations. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 C.F.R. 70. This Statement of Basis, required under 40 C.F.R. 71.11(b), provides the legal and factual basis for each condition of Operating Permit No. AQ1201TVP02. Additionally, and as required by 40 C.F.R. 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1, 3 through 6, and 14, Visible Emissions Standard and MR&R

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

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

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

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 3 through 5 (for liquid fuel-burning equipment), Condition 6 (for flares), and Condition 14 (for dual fuel- burning equipment) of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares.

The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations of emissions unit exhaust, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state emission standards for visible emissions.

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

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

Condition 6 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas fuel-

burning flares normally burn without emitting visible emissions. However, gas fuel-burning flares have been shown to smoke when a control device malfunctions (e.g., knockout drum, flare scrubber, gas or steam assist, or vapor recovery system). The condition sets out a protocol to collect actual field data to determine compliance with the 20 percent visible emissions standard for flares.

Gas Fuel-Burning Equipment:

Monitoring – The monitoring of gas fuel-burning emissions units for visible emissions is waived; i.e., no Method 9 ~~or Smoke/No Smoke~~ observations will be required. The Department has found that natural gas fuel-burning equipment inherently has negligible visible emissions. Therefore, certification that an emissions unit burns only natural gas ensures that the State visible emission standard is met. However, the Department can request a source test for PM emissions from any smoking equipment.

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

Liquid Fuel-Burning Equipment:

Monitoring – The emissions unit exhaust must be observed by either the Method 9 Plan ~~or the Smoke/No Smoke Plan~~ as detailed in Condition 3. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations. The Permittee has opted not to use the Smoke/No Smoke plan and requested that this option not be included in the permit, so the Department did not include this provision in the permit.

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

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

Dual Fuel-Burning Equipment:

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU IDs 103 and 104 operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 14.3 is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU IDs 103 and 104 operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that emissions unit consists of an annual certification of compliance with the visible emissions standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

~~Significant~~ Insignificant Emissions Units ~~under 18 AAC 50.326(d)(1)~~:

EU IDs 115, 116, 130-138, 152, 162, and 163 have potential emissions that are below the significant thresholds listed in 18 AAC 50.326(e). Insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. These requirements are covered in Condition 33. ~~However, these emissions units do not qualify as insignificant per 18 AAC 50.326(d)(1) because they~~

~~are subject to emissions unit- specific requirements. Monitoring for these emissions units consists of an annual certification under Condition 87 for the visible emissions standard based on reasonable inquiry.~~

Flares:

Monitoring for flares (EU IDs 112 and 113) requires Method 9 observations of scheduled daylight flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

Condition 2, Incinerator Visible Emissions Standard and MR&R

Legal Basis: This visible emissions standard under 18 AAC 50.050(a) applies to the operation of any incinerator in Alaska, including an air curtain incinerator. The visible emissions standard is included in the SIP approved by EPA, and the Department included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

Factual Basis: Condition 2 requires the Permittee to comply with the applicable visible emissions standard in 18 AAC 50.050(a). The Permittee shall not cause or allow the affected incinerator(s) to violate this standard. The Permittee is required to monitor, record, and report according to Condition 2.1.

Conditions 7, 8 through 13, and 14, PM Standard and MR&R

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

- 18 AAC 50.055(b)(1) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

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

Factual Basis: Condition 7 prohibits emissions in excess of the applicable state PM standard. MR&R requirements are listed in Conditions 8 through 10, 11 through 13, and 14 of the permit. These conditions have been adopted into regulation as SPC IX.

The Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

Except for gas fuel-burning equipment, the Permittee must establish by visual observations, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state's emission standards for PM.

Gas Fuel-Burning Equipment:

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

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

Liquid Fuel-Burning Equipment:

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

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

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

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

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

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

Dual Fuel-Burning Equipment:

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU IDs 103 and 104 operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 14.3 is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU IDs 103 and 104 operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that unit consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

~~Significant~~ Insignificant Emissions Units ~~under 18 AAC 50.326(d)(1)~~:

EU IDs 115, 116, 130-138, 152, 162, and 163 have potential emissions that are below the significant thresholds listed in 18 AAC 50.326(e). Insignificant emission units must meet the state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment regardless of size. These requirements are covered in Condition 33. ~~However, these emissions units do not qualify as insignificant per 18 AAC 50.326(d)(1) because they are subject to emissions unit- specific requirements. Monitoring for these emissions units consists of an annual certification under Condition 87 for the PM emissions standard based on reasonable inquiry.~~

Flares:

Monitoring of flares for PM is waived; i.e., no source testing is required, because of the difficulty and questionable results these tests produce when applied to flares. Compliance with the state visible emissions standard serves as surrogate compliance demonstration for the state particulate matter emissions standard.

Condition 15 through 17, Sulfur Compound Emissions Standard and MR&R

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

- 18 AAC 50.055(c) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 96, 101-104, 107-116, 130-138, 147-149, 152, 162, and 163 are fuel-burning equipment.

The sulfur compound standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

Liquid Fuels:

For the liquid fuel-burning equipment, EU IDs 96, 107-111, 114-116, 130-138, 147-149, 152, 162, 163, and EU IDs 103 and 104 when burning ultra-low sulfur diesel (ULSD), the MR&R conditions are SPCs XI and XII adopted into regulation pursuant to AS 46.14.010(e). Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g., diesel or No.2 fuel oil). Fuel sulfur testing will verify compliance. Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard.

For the liquid fuel-burning equipment, EU IDs 96, 115, 116, 130-138, 152, 162, and 163, and EU IDs 103 and 104 when burning liquid fuel, to avoid a minor permit classification for SO_2, the Permittee is required to limit sulfur contents of diesel fuel burned in the emissions units to concentrations lower than necessary, as shown in Condition 29. Therefore, the MR&R requirements in Condition 16 for compliance with the state SO_2 standard in Condition 15 have been streamlined based on the more stringent fuel sulfur content limit of 0.0015 percent by weight, the sulfur content of ultra-low diesel fuel (ULSD), rather than having two sets of MR&R.

For liquid fuel-burning heater, EU ID 147, the Permittee may burn used oil mixed with ULSD.

To avoid a minor permit classification for SO_2, the Permittee is required to measure the ash content of a representative sample of the used oil and then is allowed to use a blending ratio from Table F, corresponding to the measured ash content, as shown in Condition 30. By complying with Condition 30, the Permittee will ensure compliance with Condition 15. Therefore, the MR&R requirements in Condition 16 for compliance with the state SO_2 standard in Condition 15 have been streamlined based on the blending requirements of Condition 30.

Beyond as noted above, the Department has determined that the standard permit conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emissions unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions, as modified, meet the requirements of 40 C.F.R. 71.6(a)(3).

Gaseous Fuels:

Fuel sulfur testing will verify compliance with SO_2 emission standard. ~~Mercaptans are a concentrated thiol molecule (e.g., ethanethiol) composed of hydrogen and sulfur used to detect the presence of natural gas by its strong odor as in t-butyl-mercaptan. Basically, it is the mercaptan that allows the presence of gas to be detected by its odor, so it is naturally used as a leak detectant. However, by that same token, it can raise the sulfur content of the natural gas and should be accounted for in determining compliance with the state sulfur compound emissions standard. The Department has therefore revised the basic MR&R requirements to monitor the total sulfur quantity, instead of H_2S concentration, in the natural gas fuel due to the presence of mercaptans in the gas supply which raise the sulfur concentration.~~

Fuel sulfur testing will verify compliance with SO_2 emission standard. Fuel gas sulfur is measured as hydrogen sulfide (H_2S) concentration in parts per million by volume (ppmv). Calculations show that fuel gas containing no more than 4000 ppmv H_2S will always comply with this emission standard. This is true for all fuel gases, even with no excess air. Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H_2S concentration of even 10 percent of 4,000 ppmv is currently not available in Alaska and is not projected to be available during the life of this permit. Condition 17 streamlines MR&R requirements for compliance with the state sulfur compound emission standard in Condition 15 by requiring compliance with the more stringent fuel gas H_2S limits in Condition 31 for protection of the SO_2 ambient air quality standards and associated MR&R requirements in Conditions 31 rather than have two sets of MR&R.

Conditions 18 through 32, Preconstruction Permit Requirements

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP-approved Permits to Operate (PTO) issued on or before January 17, 1997 and operating permits issued between January 18, 1997 and September 30, 2004, and with all stationary source-specific requirements in EPA PSD permits, SIP-approved construction permits, SIP-approved minor permits, and owner requested limits (ORLs) established under 18 AAC 50.225. These requirements include ~~Best Available Control Technology (BACT),~~ limits to ensure compliance with the attainment or maintenance of ambient air quality standards ~~or maximum allowable ambient concentrations,~~ and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally approved SIP or approved operating permit program.

Factual Basis: These conditions require the Permittee to comply with pre-construction permit terms and conditions. These requirements are listed in Table K. These requirements were carried forward from Minor Permit No. AQ1201MSS04 to protect ambient air quality, avoid PSD classification for NO_x and CO, avoid minor permit classification for SO_2, and avoid regulation under 40 C.F.R. 60 Subpart Ec for the waste incinerator.

Condition 33, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.050(a) for all incinerators regardless of size and 18 AAC 50.055 for all industrial processes and fuel-burning equipment regardless of size. 18 AAC 50.050(a) and 50.055 are contained in the federally approved SIP. The Department also added permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

The Department finds that the insignificant emissions units at this stationary source do not require specific monitoring, recordkeeping, and reporting to ensure compliance under these conditions.

Condition 33.4.a requires certification that the insignificant emissions units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution, based on reasonable inquiry.

The Department used the language in SPC V, adopted by reference under 18 AAC 50.346(b)(4), for the permit condition.

Conditions 34 through 39, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 C.F.R. 70 Appendix A). The Department is the permitting authority for the Part 70 program. As the permitting authority, the Department requires compliance with all permit conditions. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standard (NSPS) program, NSPS requirements are included in the definition for "applicable requirement" under 40 C.F.R. 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The NSPS provisions under Subparts IIII and KKKK apply to the stationary source. Therefore, the Department requires compliance with those standards in a Part 70 permit issued under the approved program. However, the Department is unable to change the actual wording of the relevant standard to substitute "the Department" for "the Administrator" in those standards. Since the Department expects access to any permit-related information provided by the Permittee to the EPA, the Department will act on its responsibility as the permitting authority to determine compliance with the standard. To reflect this relationship and for the purposes of this permit, the Department has defined "the Administrator" to mean the "EPA and the Department" for conditions implementing the federal emission standards under Section 4.

Most affected facilities ~~(with the exception of some storage tanks)~~ subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs 101-104 are subject to NSPS Subpart KKKK and EU IDs 107-111, 114, 148, and 149 are subject to NSPS Subparts IIII, and therefore both sets of emissions units are subject to certain portions of Subpart A.

Conditions 34.1 through 34.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU IDs 101-104. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility[4] or in the event of a modification or reconstruction of an existing facility[5] into an affected facility.

Condition 34.4 - The requirements to notify the EPA and the Department of any proposed replacement of components of an existing facility (40 C.F.R. 60.15) apply in the event that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

Condition 35 - The requirements in 40 C.F.R. 60.7(b) to maintain start-up, shutdown, or malfunction records are applicable to EU IDs 101-104.

Condition 36 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 101-104. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility, or at such other times as may be required by EPA.

Condition 37 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to most NSPS affected facilities subject to Subpart A (EU IDs 101-104).

Condition 38 - The condition states that any credible evidence may be used to demonstrate compliance or to establish violations of relevant NSPS standards for EU IDs 101-104.

Condition 39 - Concealment of emissions prohibitions in 40 C.F.R. 60.12 are applicable to EU IDs 101-104, 107-111, 114, 148, and 149.

The flare<u>s are</u> ~~is~~ not subject to 40 C.F.R. 60.18 because <u>they are</u> ~~it is a~~ safety device<u>s</u> and not ~~a~~ control device<u>s</u>. <u>The flares do</u> ~~It does~~ not control emissions from any NSPS regulated emissions units.

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

Conditions 40 through 45, NSPS Subpart IIII Requirements

Legal Basis: NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICEs are manufactured after April 1, 2006 for non-

[4] *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.

[5] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any

apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2.

fire pump engines and manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006 for fire pump engines.

EU IDs 107-109, 114, 148, and 149 are non-emergency CI ICE, while EU IDs 110 and 111 are emergency fire pump engines. These EUs meet the applicability criteria of Subpart IIII under 40 C.F.R. 60.4200(a)(2)(i) and (ii).

Factual Basis: These conditions incorporate the Subpart IIII emissions standards applicable to EU IDs 107-111, 114, 148, and 149. The Permittee may not cause or allow these emissions units to violate these standards. These conditions also provide MR&R specifically called out for the EUs within the Subpart. The Permittee is required to operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer.

Emission standards that apply to Subpart IIII-affected CI ICE depend on several factors, including, but not limited to, the unit's purpose (whether emergency or non-emergency), model year, displacement in liters/cylinder (L/cyl), and location. Some of this information is provided in Table A of the permit.

Because the stationary source location meets the definition of "Remote areas of Alaska" in 40 C.F.R. 60.4219, the applicable standards and MR&R requirements for EU IDs 107-111, 114, 148, and 149 are rooted from the provisions under 40 C.F.R. 60.4216 that specifically address engines used in remote areas of Alaska. In particular, 40 C.F.R. 60.4216(c) allows the Permittee to comply with the applicable emission standards for emergency engines in 40 C.F.R. ~~60.4202 and~~ 60.4205, and not those for non-emergency engines in 40 C.F.R. ~~60.4201 and~~ 60.4204, whether the unit is operated as emergency or non-emergency CI ICE. Additionally, the yet to be installed EU IDs 148 and 149 must also comply with the importing or installing stationary CI ICE requirements in 40 C.F.R. 60.4208(a). Therefore, as shown in Condition 42.1, EU IDs 107-109, 114, 148, and 149 are subject to EPA Tier 2 and 3 emission standards for new nonroad CI engines as specified in Tables 2 and 3 to Appendix I to Part 1039 ~~as well as the exhaust opacity standards under 40 C.F.R. 1039.105~~. Specific standards and requirements applicable to EU IDs 110 and 111 as emergency fire pump engine units are specified in 40 C.F.R. 60.4202(d), 60.4205(c), 60.4209, 60.4211(f), 60.4214(b), and Table 4 to Subpart IIII, as shown in Conditions 42.2, 43.4, and 43.5.

EU IDs 107-109, 114, 148, and 149 do not need and are not equipped with diesel particulate filters to comply with the applicable PM standard. Therefore, the provisions regarding diesel particulate filters in 40 C.F.R. 60.4209(b) and 60.4214(c) are not included in the permit.

The Department added Condition 44 to gap-fill the operating and excess emissions and permit deviation reporting requirements. The Department has also added Condition 43.6 to provide compliance monitoring for the fuel requirements under Condition 41.3.

The NSPS GAPCP requirements provided in 40 C.F.R. 60.4211(a), as reflected in Conditions 40.2 and 40.3, suffices the State GAPCP requirement under 18 AAC 50.346(b)(5). MR&R requirements are provided in Conditions 43 and 44.

The provisions of NSPS Subpart IIII listed in Conditions 40 through 45 are current as amended through December 4, 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.

Conditions 46 through 48, NSPS Subpart KKKK Requirements

Legal Basis: Conditions 47 and 48 prohibit the Permittee from exceeding emission standards for NO_x and SO_2 set out in Subpart KKKK. Condition 46.2 reiterates the "good air pollution control practices" requirements for the affected EUs. The Subpart applies to 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. EU IDs 101-104 meet these criteria and are therefore subject to these requirements.

Factual Basis: These conditions incorporate the Subpart KKKK NO_x and SO_2 emissions standards. The Permittee may not cause or allow EU IDs 101-104 to violate these standards. These conditions also provide MR&R specifically called out for within the Subpart. Condition 47.3, which requires keeping records of performance tests data by referencing the standard requirement in Condition 81, is added to gap-fill the recordkeeping requirements.

Condition 49 through 50, NESHAP Subpart A and Subpart ZZZZ Requirements

Legal Basis: Most sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements are subject to NESHAP Subpart A. This stationary source is subject to 40 C.F.R. 63 Subpart ZZZZ and therefore is subject to the general provisions of Subpart A as specified in the provisions for the applicability of NESHAP Subpart A in Table 8 to NESHAP Subpart ZZZZ.

Factual Basis: Subpart A contains the general requirements applicable to all affected sources subject to NESHAP. In general, the intent of NESHAP is to regulate specific categories of stationary sources that emit or have the potential to emit one or more hazardous air pollutants.

For EU IDs 107-111, 114, 148, and 149, the Permittee must comply with the requirements of 40 C.F.R. 60 Subpart IIII, and there are no further requirements for EU IDs 107-111, 114, 148, and 149 under NESHAP Subpart ZZZZ.

Condition 51, Asbestos NESHAP

Legal Basis: The requirements of 40 C.F.R. 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 C.F.R. 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M and associated general provisions under Subpart A, as adopted by reference under 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation. ADEC received delegation for §61.145 and §61.154 of Subpart M (Asbestos), along with other sections and appendices which are referenced in §61.145, as §61.145 applies to sources required to obtain an operating permit under Alaska's regulations. ADEC has not received delegation for Subpart M for sources not required to obtain an operating permit under Alaska's regulations.

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

Condition 52 and Section 14, Compliance Assurance Monitoring (CAM)

Legal Basis: The combustion turbines (EU IDs 101-104) use ~~a~~ control devices, catalytic oxidizers, to reduce CO emissions. The combustion turbines ~~achieve compliance with the CO PSD avoidance limit in Condition 26 and~~ have the potential pre- control device emissions equal to or greater than the major source thresholds for CO (100 TPY). This condition applies because the stationary source has pollutant-specific emitting units that satisfy all of the CAM applicability criteria in 40 C.F.R. 64.2(a)(1-3): (1) the EUs are subject to an applicable emission limitation or standard; (2) the units use a control device to comply with any such applicability emission limitation or standard; and (3) the units have potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant.

Factual Basis: ~~The Permittee has an ORL in Condition 26 to restrict the potential CO emissions to avoid classification as a PSD major source.~~ The combustion turbines use ~~a~~ control devices to reduce CO emissions. ~~achieve compliance with the CO limit in Condition 26 and have potential pre-control device emissions equal to or greater than the major source thresholds for CO (100 TPY).~~ The control devices used are ~~is an~~ oxidation catalyst that reduces CO and VOC emissions from the turbines. The oxidation catalyst must operate within the temperature ranges contained in Condition 28.

The design control efficiency for the catalytic oxidizer is 90% while the turbines are operating in SoLoNO$_x$ mode and 85% while the turbines are operating out of SoLoNO$_x$ mode. EMAP had prepared a Compliance Assurance Monitoring strategy shown in Section 14 to ensure fulfillment of the 40 C.F.R. 64 CAM rule. The Department incorporates EMAP's plan in Condition 52 and Section 14.

Condition 53, Chemical Accident Prevention Provisions

Legal Basis: This condition applies because the Permittee has more than a threshold quantity of a regulated substance in a process, as determined by 40 C.F.R. 68.115.

Factual Basis: This condition incorporates applicable 40 C.F.R. 68 requirements. The Permittee must comply with RMP provisions of 40 C.F.R. 68.190 during the permit term.

Conditions 54 through 56, Protection of Stratospheric Ozone, 40 C.F.R. 82

Legal Basis: The requirements of 40 C.F.R. 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 C.F.R. 71.2.

Condition 54 requires compliance with the applicable requirements in 40 C.F.R. 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants in 40 C.F.R. 82, Subpart F.

Conditions 55 and 56 also require compliance with the applicable requirement adopted under 18 AAC 50.040(d). Condition 55 prohibitions apply to all stationary sources that use substitutes for ozone-depleting compounds. Condition 56 prohibitions apply to all stationary sources that use halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these requirements. The Point Thomson Production Facility uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

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

Condition 57, NESHAP Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAP and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and EPA if the stationary source becomes an affected source subject to a standard promulgated by EPA under 40 C.F.R. 63 and to keep records of applicability determinations and make those records available to the Department.

Conditions 58 through 60, Standard Terms and Conditions

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

Factual Basis: These are standard conditions that apply to all permits.

Condition 61, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400-403. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 C.F.R. 71.9 is not applicable.

Factual Basis: Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. The regulations in 18 AAC 50.400-403 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 62 and 63, Emission Fees

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

Factual Basis: Except, as noted in the last paragraph, the Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), for the permit. SPC I requires the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

SPC I also allows the Permittee to recalculate the stationary source’s assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

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

As indicated in Condition 63.3, if the stationary source has not commenced construction or operation on or before March 31st, the Permittee may submit a waiver letter certified by the responsible official under 18 AAC 50.205 indicating that the assessable emissions for the source is zero for the previous fiscal year.

The Department has modified Condition 62 by deleting the phrase "in quantities 10 tons per year or greater" to match the revision made in 18 AAC 50.410 effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 64, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 C.F.R. 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units; i.e., except EU IDs 101-104, 107-111, 114, 148, and 149.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all units.

The Department adopted this condition under 18 AAC 50.346(b) as SPC VI pursuant to AS 46.14.010(e). Records kept in accordance with Condition 64.2 for units subject to GAPCP need to be maintained for 5 years in accordance with Condition 81 even if a unit is no longer subject to this condition.

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

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

Condition 65, Dilution

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

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

Condition 66, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition reiterates 18 AAC 50.045(d), which requires a person to use reasonable precautions when handling, storing, or transporting bulk materials or engaging in an industrial activity. 18 AAC 50.045 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

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

Condition 67, Stack Injection

Legal Basis: This condition reiterates 18 AAC 50.055(g), which prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e., disposing of material by injecting it into a stack). 18 AAC 50.055 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2.

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

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

Condition 68, Air Pollution Prohibited

Legal Basis: This condition requires compliance with 18 AAC 50.110. 18 AAC 50.110 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. The Department also included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

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

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

Condition 69, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if unavoidable emergency, malfunction, or non-routine repair activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the requirement in 18 AAC 50.235. Technology-Based Emission Standard requirements

apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 85. Excess emission reporting under Condition 85 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 85.

Condition 70, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. 18 AAC 50.065 is included in the SIP approved by EPA and, therefore, is an applicable requirement, per 40 C.F.R. 71.2. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website http://dec.alaska.gov/air/air-permit/open-burn-info. Condition 70.1 requires the Permittee to keep records to demonstrate compliance with the standards for conducting open burning.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 87.

Condition 71, Requested Source Tests

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

Factual Basis: This condition applies because this is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a). Compliance is demonstrated through the submission of the required source test plan and report.

Conditions 72 through 74, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: Conditions 72 and 74 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 73 specifies source test methods, as required by 40 C.F.R. 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by the permit to conduct source tests or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 72 through 74.

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

Condition 75, Test Exemption

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

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

Conditions 76 through 79, Test Deadline Extension, Test Plans, Notifications, and Reports

Legal Basis: Conditions 77 through 79 require compliance with the applicable requirements in 18 AAC 50.345(m) through (o), which are included in the SIP approved by EPA. Condition 76 contains the requirement in 18 AAC 50.345(l). The requirements in 18 AAC 50.345(l) through (o) constitute standard conditions that must be included in each operating permit, as specified in 18 AAC 50.345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

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

Condition 80, Particulate Matter Calculations

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

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. The Permittee must use the equation given in this condition to calculate the particulate matter emission concentration from the source test results. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 81, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 C.F.R. 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4). It also incorporates the general NSPS recordkeeping requirement under 40 C. F. R. 60.7(f), which the Department adopted by reference under 18 AAC 50.040(a)(1).

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide evidence of compliance with this requirement.

40 C.F.R. 60.7(f) requires records retention for at least two years of the measurements required to be maintained by this Part while 40 C.F.R. 71.6(a)(3)(ii) requires at least five years of records retention. The five-year records retention requirement in Condition 81 satisfies both 40 C.F.R. 60.7(f) and 40 C.F.R. 71.6(a)(3)(ii).

Condition 82, Certification

Legal Basis: All operating permits must contain a requirement to certify permit applications, reports, affirmations, or compliance certification, per 18 AAC 50.345(j). The requirement is a part of the SIP approved by EPA.

Factual Basis: The Department used the language in SPC XVII, adopted by reference under 18 AAC 50.346(b)(10), for the permit condition. The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). 18 AAC 50.345(j) allows the excess emissions reports to be certified with the operating report. However, the Department reminds the Permittee that excess emissions reports must be submitted according to the applicable deadline given in Condition 85 and must not be withheld from the Department until the deadline for submittal of an operating report. This condition supplements the reporting requirements of this permit. The certification statement through electronic signature and options for submittal provide paperless options for reporting without compelling Permittees to any specific means of submission.

Condition 83, Submittals

Legal Basis: This condition applies because the Permittee is required to send reports to the Department and supplements the standard reporting and notification requirements of this permit.

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

Condition 84, Information Requests

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

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

Condition 85, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

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

The Department used the language in SPC III, adopted by reference under 18 AAC 50.346(b)(2), for the permit condition. The Department used the notification form in SPC IV adopted by reference under 18 AAC 50.346(b)(3), for the notification requirements (see Section 12) for the notification requirements.

Condition 86, Operating Reports

Legal Basis: The condition specifies reporting requirements as required by 40 C.F.R. 71.6(a)(3)(iii)(A) which the Department has adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The Department used the language in SPC VII, adopted by reference under 18 AAC 50.346(b)(6), for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements identified elsewhere in the permit.

The condition specifies that for the transition periods between an expiring permit and a renewal permit, the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports: one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 87, Annual Compliance Certification

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

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

Condition 87.2 provides clarification of transition periods between an expiring permit and a renewed or revised ~~renewal~~ permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified. The Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period or may choose to provide two reports: one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewed or revised~~renewal~~ permit until December 31.

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

Condition 88, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the state, so the state is able to satisfy the federal requirement to submit emission inventory data from point sources to the EPA as required under 40 C.F.R. 51.15 and 51.321. The federal emission inventory requirement applies to sources defined as point sources in 40 C.F.R. 51.50. Under

18 AAC 50.275, the state also requires reporting of emissions triennially for stationary sources with an air quality permit, regardless of permit classification. This includes sources that do not meet the federal emission thresholds in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A. The state must report emissions data as described in 40 C.F.R 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A to EPA.

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

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 C.F.R. 51.30(a)(1) and (b)(1)). Permittees have until April 30th to compile and submit the data to the Department. To expedite the Department's process of transferring data into EPA's electronic reporting system, the Department encourages Permittees to submit the emission inventory through the Department's electronic emission inventory submission system in the Permittee Portal on the Department's Air Online Services webpage http://dec.alaska.gov/Applications/Air/airtoolsweb/. A myAlaska account and profile are needed to gain access to the Permittee Portal. Other options are to submit the emission inventory via mail, email, or fax.

Detailed instructions on completing and submitting the emission inventory and the report form are available at the Point Source Emission Inventory page http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory by clicking the Emission Inventory Instructions button. The emission inventory instructions and report form may also be obtained by contacting the Department.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, stationary sources with air quality permits are required to submit with each report emissions data described in 40 C.F.R. 51.15 and the data elements in Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A, as applicable. Title V stationary sources with potential annual emissions greater than or equal to any of the emission thresholds shown in Condition 88.1 for Type A (large) sources, as listed in Table 1 to Appendix A of 40 C.F.R. 51 Subpart A, are required to report emission inventory data every year for the previous calendar year (also known as the inventory year). For triennial inventory years, Type A sources only need to submit one report, not both an annual report and a separate triennial report.

Stationary sources, excluding owner requested limits (ORLs) issued under 18 AAC 50.225 and preapproved emission limits (PAELs) issued under 18 AAC 50.230, that do not meet any of the emission thresholds in Condition 88.1 for Type A (large) sources are required to report emission inventory data every third year (i.e., triennially) for the previous inventory year under Condition 88.2.

As of the issue date of this permit, the Point Thomson Production Facility is required to report under Condition 88.2.

The Department has modified Condition 88 by lowering the thresholds that require reporting to include all stationary sources regardless of permit classification (excluding ORLs and PAELs) to capture the new requirements found in 18 AAC 50.275, effective September 7, 2022. Beyond as noted, the Department has determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3).

Condition 89, NSPS and NESHAP Reports

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

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The reports themselves provide monitoring for compliance with this condition.

Condition 90, Permit Applications and Submittals

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

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

Conditions 91 through 93, Permit Changes and Revisions Requirements

Legal Basis: The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under18 AAC 50.326(j)(4). 40 C.F.R. 71.6(a)(8), (12), and (13), incorporated by reference under 18 AAC 50.040(j), require that these provisions be included in operating permits.

Factual Basis: 40 C.F.R. 71.6(a)(12) and (13), as reflected in Conditions 92 and 93, respectively, specify changes that may be made without a permit revision, and 40 C.F.R. 71.6(a)(8) (Condition 91) states permit revisions are not required for some emissions trading and similar programs.

The Permittee did not request trading of emission increases and decreases as described in 40 C.F.R. 71.6(a)(13)(iii); therefore, language addressing these provisions has not been included in this permit as part of Condition 91.

Condition 94, Permit Renewal

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

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 C.F.R. 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the

operating permit. According to 40 C.F.R. 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 C.F.R. 71.5(c) and remits payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 C.F.R. 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

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

Conditions 95 through 99, General Compliance Requirements and Schedule

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

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

Conditions 100 and 101, Permit Shield

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

Factual Basis: Table I of Operating Permit No. AQ1201TVP02 shows the permit shields that the Department granted to the Permittee. The Department based the determinations on the permit application, past operating permit, Title I permits, and inspection reports. Should any of the shielded requirements become applicable during the permit term, the Permittee is required to take necessary steps to comply with all applicable requirements in a timely manner.

ATTACHMENT A

FIGURE 1 SUMMARY REPORT GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A General Provisions]

Pollutant *(Circle One)*: SO_2 NO_x TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company:
Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission Data Summary [1]	**CMS Performance Summary** [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ..... ____
b. Control equipment problems ..... ____	b. Non Monitor equipment malfunctions ..... ____
c. Process problems ..... ____	c. Quality assurance calibration ..... ____
d. Other known causes ..... ____	d. Other known causes ..... ____
e. Unknown causes ..... ____	e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... ____ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since last quarter in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ *Date*: _____

Title: _____