Hilcorp Alaska, LLC

Post Office Box 244027
Anchorage, AK 99524-4027

3800 Centerpoint Drive
Suite 1400
Anchorage, AK 99503

Phone: 907/777-8300
Fax: 907/777-8301

January 30, 2024

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

Subject: Hilcorp Alaska, LLC – Monopod Platform
Air Quality Operating Permit No. AQ0067TVP03 Application for Renewal

Dear Application Intake:

Please find attached the Hilcorp Alaska, LLC (Hilcorp) application for renewal of Air Quality Operating Permit No. AQ0067TVP03 for Monopod Platform. Under Condition 74 of the permit, an application must be submitted no sooner than February 5, 2023 and no later than February 5, 2024. Hilcorp understands that submittal by the February 5, 2024 date represents a timely application consistent with 40 CFR 71.5(a)(1)(iii) and completeness will be evaluated by the Alaska Department of Environmental Conservation (ADEC) according to 40 CFR 71.5(a)(2).

Hilcorp believes that this submittal constitutes a complete air quality operating permit application according to the requirements of 40 CFR 71.5 and 18 AAC 50.326. Hilcorp will continue to comply with all applicable requirements with which Monopod Platform is in compliance. Hilcorp will meet new requirements that become effective during the permit term on a timely basis.

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.

We appreciate the ADEC's efforts in processing this operating permit renewal application for Monopod Platform. Please contact Drew Anderson at (907) 777-8488 or ananderson@hilcorp.com with any questions or concerns.

Sincerely,

Trudi Hallett

Trudi Hallett
Asset Team Lead
Hilcorp Alaska, LLC

Enclosure: Monopod Platform Air Quality Operating Permit Renewal Application

cc: Electronic Copy
US EPA Region 10
M/S OAW 150
1200 Sixth Avenue, Suite 900
Seattle, WA, 98101

Drew Anderson, Hilcorp

Hilcorp Alaska, LLC

Monopod Platform

Application for Renewal of an Air Quality Operating Permit

Prepared for:

Hilcorp Alaska, LLC

January 2024

BOREAL

Monopod Platform

Application for Renewal of an Air Quality Operating Permit

Prepared for:

Hilcorp Alaska, LLC

3800 Centerpoint Dr., Suite 1400
Anchorage, AK 99503

Prepared by:

Boreal Environmental Services, Inc.

4300 B Street, Suite 510
Anchorage, AK 99503

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Stationary Source

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FORM A1
Stationary Source (General Information)

GENERAL INFORMATION			
1. Permittee:			
Permittee Name: Hilcorp Alaska, LLC			
Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400			
Mailing Address Line 2			
City: Anchorage	State: AK	Zip Code: 99503	
2. Stationary Source Name: Monopod Platform			
3. Stationary Source Physical Address:			
Physical Address Line 1: Upper Cook Inlet, AK			
Physical Address Line 2			
City: Cook Inlet	State: AK	Zip Code:	
4. Location:	Latitude: 60° 53' 49" North	Longitude: 151° 34' 45.5" West	
5. Primary SIC Code: 1311	SIC Code Description: Crude Petroleum and Natural Gas	***Primary NAICS Code:*** 211111 – Crude Petroleum and Natural Gas Extraction	
6. Current/Previous Title V Air Permit No.: AK AQ0067TVP03		Expiration Date: August 5, 2024	
7. Does this application contain confidential data?	☐ Yes	☒ No	

8. APPLICATION IS BEING MADE FOR:		
☐ Initial Title V Permit for this Stationary Source	☐ Modify Title V Permit (currently permitted)	☒ Title V Permit Renewal

9. CONTACT INFORMATION (Attach additional sheets if needed)	
Owner:	***Operator:***
Name/Title: Hilcorp Alaska, LLC	Name/Title: Hilcorp Alaska, LLC
Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400	Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400
Mailing Address Line 2	Mailing Address Line 2
City: Anchorage State: AK Zip Code: 99503	City: Anchorage State: AK Zip Code: 99503
Permittee's Responsible Official:	***Designated Agent:***
Name/Title: Please see attached sheet.	Name/Title: CT Corporation System
Mailing Address Line 1:	Mailing Address Line 1: 9360 Glacier Highway, Suite 202
Mailing Address Line 2	Mailing Address Line 2
City: Anchorage State: AK Zip Code:	City: Juneau State: AK Zip Code: 99801
Stationary Source and Building Contact:	***Fee Contact:***
Name/Title: Drew Anderson, P.E./Environmental Engineer	Name/Title: Hilcorp Alaska, LLC Accounts Payable
Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400	Mailing Address Line 1: PO Box 61529
Mailing Address Line 2	Mailing Address Line 2
City: Anchorage State: AK Zip Code: 99503	City: Houston State: TX Zip Code: 77208
Phone: (907) 777-8488 Email: ananderson@hilcorp.com	Phone: Email:
Permit Contact:	***Person or Firm that Prepared Application:***
Name/Title: Drew Anderson, P.E./Environmental Engineer	Name/Title: Jeanette Brena, P.E./Boreal Environmental Services
Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400	Mailing Address Line 1: 4300 B Street, Suite 510
Mailing Address Line 2	Mailing Address Line 2
City: Anchorage State: AK Zip Code: 99503	City: Anchorage State: AK Zip Code: 99503
Phone: (907) 777-8488 Email: ananderson@hilcorp.com	Phone: (907) 227-5569 Email: jbrena@boreal-services.com

10. STATEMENT OF 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.	
Name of Responsible Official (typed): Trudi Hallett	Title: Asset Team Lead
X Signature (blue ink): Trudi Hallett	Date: 1/30/2024

9. Contact Information

Permittee's Responsible Officials:

1) Luke Saugier
   Title: Senior Vice President
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

2) Trudi Hallett
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

3) Chris Kanyer
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

4) Anthony McConkey
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

5) Bradley Simpson
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

FORM A4
Title V Air Operating Permit Renewal Application Information

Permit Number: AQ0067TVP03

1.	Permit Contact: Name	Drew Anderson, P.E.
	Title	Environmental Engineer
	Mailing Address Line 1	3800 Centerpoint Drive, Suite 1400
	Mailing Address Line 2	Anchorage, AK, 99503
	Phone Number	(907) 777-8488
	Email	ananderson@hilcorp.com
2.	Were there any changes to stationary source General Information (Form A1)? If yes, complete and submit a Form A1.	Yes, please see attached Form A1.
3.	Were there any changes to the stationary source description (Form A2)? If yes, complete and submit a Form A2.	No.
4.	Were there any off-permit changes? Reference any notifications provided to the Department, and attach copies of the notifications.	No.
	If yes, integrate changes into renewal permit? [if no, explain]	N/A
5.	Have any Alaska Title I permits been issued to the stationary source since the most recent Title V permit or revision issuance?	No.
	If yes, integrate changes into renewal permit? [If yes, please list. If no, explain]	N/A
6.	Will there be any changes to the operating scenario(s)? [if yes, describe and attach Form A3]	No.
7.	Will there be any new, modified, or reconstructed emission units or air pollution control equipment? [if yes, attach appropriate forms from Form Series B, C, D, and E]	No.
8.	Are the current emissions units correctly identified and defined in the permit? [if no, attach appropriate forms from Form Series B, C, D, and E]	No, please see attached Form B.
9.	Does the CAM rule [40 CFR Part 64] apply to any of the emissions units? [if yes, review the guidance provided for CAM in the Form A4 instructions for this item]	No.
10.	Does the accidental release prevention regulation [40 CFR Part 68] apply to the facility? [if yes, provide the appropriate regulatory applicability document in detail.]	No.
11.	Are there any other new applicable requirements? [if yes, list the new applicable requirements, emissions units, and attach the appropriate Series E Form]	No.

12.	Are there any requested changes in the assessable potential to emit other than those identified in item 9 above? [if yes, answer the following]	Yes, please see Table D-1a.
	Are the changes a result of having better emissions information such as a new emission factor from a recent source test? [if yes, complete and attach any applicable emissions forms from Series D. Attach additional information as necessary to fully document.]	Yes.
	Are the changes due to an increase in production? [if yes, complete and attach the applicable emissions form from Series D. Attach additional information as necessary to fully document.]	No.
13.	Is the stationary source in compliance with all of the conditions of the current permit? If yes, attach a compliance certification. If no, attach a compliance schedule and/or actions taken for any out-of-compliance emission units.	Yes, please see attached compliance certification.
14.	Are there any requested changes to testing and/or monitoring conditions? [if yes, identify the condition, the requested change, and the reason. Attach additional information as necessary to fully document.]	Yes, please see attached Form E3.
15.	Are there any requested changes to monitoring conditions other than those being replaced by CAM? [if yes, identify the condition, the requested change, and the reason. Attach additional information as necessary to fully document.]	Yes, please see attached Form E3.
16.	Are there any requested changes to recordkeeping conditions? [if yes, identify the condition, the requested change, and the reason. Attach additional information as necessary to fully document.]	Yes, please see attached Form E3.
17.	Are there any requested changes to reporting conditions? [if yes, identify the condition, the requested change, and the reason. Attach additional information as necessary to fully document.]	Yes, please see attached Form E3.
18.	Are there any requested changes to the non-applicable requirements (i.e. permit shield)? [if yes, identify the emission unit, the requested change, and the reason in the appropriate Series B and/or D form. If the change applies stationary source-wide, complete the appropriate Series E form. Attach additional information as necessary to fully document.]	Yes, please see attached Forms B1, B2, B5, and E4.

19.	Are there any other requested changes to any condition? [if yes, identify the condition, the requested change, and the reason. Attach additional information as necessary to fully document.]	Yes, please see attached Form E3.

Statement of 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.

Trudi Hallett
Name of Responsible Official

Asset Team Lead
Title

Trudi Hallett
Signature (blue ink)

1/30/2024
Date

Attachment A-1: Compliance Certification

Monopod Platform Operating Permit No. AQ0067TVP03
TV Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
Section 3. State Requirements			
Visible Emissions Standards			
1	**Industrial Process and Fuel-Burning Equipment Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.	In Compliance	Records Review and Field Verification/Interview
	1.1. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, monitor, record and report in accordance with Conditions 2 through 4. 1.2. For EU IDs 1 through 7, 15, and 26, burn only gas as fuel. Monitoring for these emission units shall consist of a certification in each operating report under Condition 67 that each of these emission units fired only gas during the period covered by the report. Report under Condition 66 if any fuel is burned other than gas. 1.3. For EU IDs 17 through 20, monitor, record and report in accordance with Condition 5.	In Compliance	Records Review and Field Verification/Interview
Visible Emissions Monitoring, Recordkeeping and Reporting			
2	**Visible Emissions Monitoring.** The Permittee shall observe the exhaust of EU IDs 8a, 9a, 10a, 13, 14, and 23a for visible emissions using either the Method 9 Plan under Condition 2.1 or the Smoke/No-Smoke Plan under Condition 2.2. The Permittee may change visible-emissions plans for an emission unit at any time unless prohibited from doing so by Condition 2.3. The Permittee may for each unit elect to continue the visible emission monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.	In Compliance	Records Review
	2.1. **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations. a. First Method 9 Observation. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, observe exhaust for 18 minutes within six months after the issue date of this permit. For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.2. For any unit replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup. b. Monthly Method 9 Observations. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that an emission unit operates. c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under Condition 2.1b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations: (i) Within six months after the preceding observation, or (ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following six months after the preceding observation. d. Annual Method 9 Observations. After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations: (i) Within twelve months after the preceding observation; or (ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following twelve months after the preceding observation. e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that emission unit to at least monthly intervals as described in Condition 2.1.b, until the criteria in Condition 2.1.c for semiannual monitoring are met.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
2	2.2. **Smoke/No Smoke Plan.** Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor. a. Initial Monitoring Frequency. Observe the exhaust during each calendar day that an emission unit operates. b. Reduced Monitoring Frequency. After the emission unit has been observed on 30 consecutive operating days, if the emission unit operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that an emission unit operates. c. Smoke Observed. If smoke is observed, either begin the Method 9 Plan of Condition 2.1 or perform the corrective action required under Condition 2.3. 2.3. **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 2.2, then the Permittee shall either follow the Method 9 plan of Condition 2.1 or a. initiate actions to eliminate smoke from the emission 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 smoke; and c. after completing the actions required under Condition 2.3a, (i) take Smoke/No Smoke observations in accordance with Condition 2.2 (A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and (B) continue as described in Condition 2.2b; or (ii) if the actions taken under Condition 2.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of Condition 2.3c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under Condition 2.2a.	In Compliance	Records Review
3	**Visible Emissions Recordkeeping.** When required by Condition 1.1, or in the event of replacement of any EU IDs 8a, 9a, 10a, 13, 14, and 23a during the permit term, the Permittee shall keep records as follows: 3.1. When using the Method 9 Plan of Condition 2.1 a. the observer shall record (i) the name of the stationary source, emission unit, and location; stationary source type, observer's name, and affiliation; and the date on the Visible Emissions Field Data Sheet 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 mode (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 Emissions Observation 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, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the avenge opacity on the sheet; c. calculate and record the highest 18-consecutive-minute averages observed.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
3	3.2. If using the Smoke/No Smoke Plan of Condition 2.2, 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. from Table A, the ID of the emission unit observed; c. whether visible emissions are present or absent in the exhaust; d. a description of the background to the exhaust during the observation; e. if the unit starts operation on the day of the observation, the startup time of the unit; f. name and title of the person making the observation; and g. operating mode (load or fuel consumption rate).	In Compliance	Records Review
4	**Visible Emissions Reporting.** When required by Condition 1.1, or in the event of replacement of any EU IDs 8a, 9a, 10a, 13, 14, and 23a during the permit term, the Permittee shall report visible emissions as follows: 4.1. Include in each operating report under Condition 67 for the period covered by the report: a. which visible-emissions plan of Condition 2 was used for each emission unit; if more than one plan was used, give the time periods covered by each plan; b. for each emission unit under the Method 9 Plan, (i) copies of the observation results (i.e. opacity observations) for each unit that used the Method 9 Plan, 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-minute average observed; and (C) dates when one or more observed six-minute averages were greater than 20 percent c. for each emission unit under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and d. a summary of any monitoring or recordkeeping required under Conditions 2 and 3 that was not done;	In Compliance	Records Review
	4.2. Report under Condition 66: a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and b. if any monitoring under Condition 2 was not performed when required, report within three days of the date the monitoring was required.	In Compliance	Records Review

5	**Visible Emissions Monitoring, Recordkeeping, and Reporting.** For each of EU IDs 17 through 20, the Permittee shall observe one daylight flare event within 12 months of the preceding flare event observation. If no event exceeds 1 hour within that 12-month period, then the Permittee shall observe the next daylight flare event.
	5.1. Monitor flare events using Method 9.
	5.2. Record the following information for observed events:
	a. the flare(s) EU ID number;
	b. results of the Method-9 observations;
	c. reason(s) for flaring;
	d. date, beginning and ending time of event; and
	e. volume of gas flared.
		In Compliance	Records Review

	5.3. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. Until the Permittee completes the monitoring on the flare events described in this condition, the Permittee shall either monitor each qualifying flare event or include in the next operating report required by Condition 67 an explanation of the reason the event was not monitored. If no events meeting this definition occur during a reporting period then no monitoring is required.	In Compliance	Records Review
	5.4. Attach copies of the records required by Condition 5.2 with the operating report required by Condition 67 for the period covered by the report. 5.5. Report under Condition 66 whenever the opacity standard in Condition 1 is exceeded.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
Particulate Matter Emissions Standards			
6	**Industrial Process and Fuel-Burning Equipment Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours. 6.1. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, monitor, record and report in accordance with Conditions 7 through 9. 6.2. For EU IDs 1 through 7, 15, and 26, burn only gas as fuel. Monitoring for these emission units shall consist of a certification in each operating report under Condition 67 whether each of these emission units fired only gas for the period covered by the report. Report under Condition 66 if any fuel other than gas is burned. 6.3. For EU IDs 17 through 20, the Permittee must annually certify compliance under Condition 68 with the particulate matter standard.	In Compliance	Records Review and Field Verification/Interview
PM Monitoring, Recordkeeping and Reporting			
7	**Particulate Matter Monitoring for Diesel Engines and Liquid-Fired Turbines.** The Permittee shall conduct source tests on diesel engines and liquid-fired turbines, EU IDs 8a, 9a, 10a, 13, 14, and 23a, to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 7. 7.1. Except as provided in Condition 7.4 within six months of exceeding the criteria of Conditions 7.2a or 7.2b, either a. conduct a PM source test according to requirements set out in Section 6; or b. make repairs so that emissions no longer exceed the criteria of Condition 7.2; to show that emissions are below those criteria, observe emissions as described in Condition 2.1 under load conditions comparable to those when the criteria were exceeded. 7.2. Conduct the test or make repairs according to Condition 7.1 if a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing. 7.3. During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report. 7.4. The automatic PM source test requirement in Conditions 7.1 and 7.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.	In Compliance	Records Review
8	**Particulate Matter Recordkeeping for Diesel Engines.** Within 180 calendar days after the effective date of the permit, the Permittee shall record the exhaust stack diameters of EU IDs 8a, 9a, 10a, and 23a. Report the stack diameters in the next operating report under Condition 67.	In Compliance	Records Review
9	**Particulate Matter Reporting for Diesel Engines.** The Permittee shall report as follows:		
	9.1. Report under Condition 66 a. the results of any PM source test that exceeds the PM emissions limit; or b. if one of the criteria of Condition 7.2 was exceeded and the Permittee did not comply with either Condition 7.1a or 7.1b, this must be reported by the day following the day compliance with Condition 7.1 was required; 9.2. Report observations in excess of the threshold of Condition 7.2b within 30 days of the end of the month in which the observations occur;	In Compliance	Records Review
	9.3. In each operating report under Condition 67, include for the period covered by the report: a. the dates, EU ID(s), and results when an observed 18-minute average was greater than an applicable threshold in Condition 7.2; b. a summary of the results of any PM testing conducted under Condition 7; and c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 7.2, if they were not already submitted.	In Compliance	Records Review
Sulfur Compound Emission Standards Requirements			
10	**Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 to exceed 500 ppm averaged over three hours.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
10	10.1. For EU IDs 13 and 14, the Permittee shall comply with the fuel sulfur content limit in Condition 18. 10.2. The Permittee shall do one of the following for each shipment of fuel: a. If the fuel grade required a sulfur content of no greater than 0.3 percent by weight, keep receipts that specify fuel grade and amount; or b. If the fuel grade does not require a sulfur content of no greater than 0.3 percent by weight, keep the receipts that specify fuel grade and amount; and (i) test the fuel for sulfur content; or (ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the results must include a statement signed by the supplier or refinery of what fuel they represent. 10.3. Fuel testing under Condition 10.2 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1). 10.4. If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 12 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).	In Compliance	Records Review
	10.5. The Permittee shall report as follows: a. If SO_2 emissions calculated under Condition 10.4 exceed 500 ppm, the Permittee shall report under Condition 66. When reporting under this condition, include the calculation under Condition 10.4. b. The Permittee shall include in the operating report required by Condition 67 (i) a list of fuel grades received at the stationary source during the reporting period; (ii) for any grade with a maximum fuel sulfur greater than 0.3 percent sulfur, the fuel sulfur of each shipment; and (iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.	In Compliance	Records Review
	10.6. Monitoring - The Permittee shall analyze a representative sample of the fuel semiannually to determine the sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1). 10.7. Recordkeeping. The Permittee shall keep records of the sulfur content analysis required under Condition 10.6.	In Compliance	Records Review
	10.8. Reporting - a. Report as excess emissions, in accordance with Condition 66, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 10. b. Include copies of the records required by Condition 10.7 with the operating report required by Condition 67 for the period covered by the report.	In Compliance	Records Review
Pre-construction Permit Requirements			
11	Installation Notification For EU ID 26, submit to the Department's Fairbanks Office the installation date, serial number, specification sheet, and maximum design rating of the turbine within 30 days after installation.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
12	To avoid classification under 18 AAC 50.306 for NOx, indirect PM-2.5, and ozone (O_3), the Permittee shall limit the total combined emissions of NOx from EU ID 8a, 9a, and 10a to 56.2 tpy or less as follows: 12.1. Limit the combined hours of operation of EU IDs 8a, 9a and 10a to no more than 6,800 hours per 12-month period. a. Install, maintain, and operate an hour meter on each of EU IDs 8a, 9a, and 10a. b. Record the hour meter reading for each of EU IDs 8a, 9a, and 10a on the last day of each month. c. No later than the 15th day of each month, calculate and record: (i) The number of hours each week each of EU IDs 8a, 9a, and 10a operated during the previous calendar month. If an hour meter is not operational, assume continuous operation for that period. (ii) The total number of hours of each EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months. (iii) The combined total number of hours EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months. d. Report the values under Condition 12.1.c in each operating report required in Condition 67 for each month of the reporting period. e. Report in accordance with Condition 66 whenever a limit in Condition 12 or 12.1 is exceeded.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
13	The Permittee shall limit NOx emissions from EU ID 26 to no more than 39 tons per rolling 12 consecutive month period. 13.1. Install and operate a data acquisition system capable of logging the following parameters for EU ID 26 at intervals of no greater than every three minutes. a. Status of SoLoNOx mode (active or inactive), and b. The inlet air temperature of EU ID 26 in degrees Fahrenheit (°F). 13.2. At least once every three minutes, the Permittee shall monitor and record the parameters listed in Condition 13.1. 13.3. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month: a. Calculate and record the NOx emissions for the previous calendar month. Emissions shall be calculated as follows: (i) Calculate and record the total time, in minutes, that the unit operated in each of the operating scenarios listed in Condition 13.3a(i)(A) through 13.3.a(i)(C) using the data recorded under Condition 13.2. (A) In SoLoNOx at inlet temperatures >0°F; (B) In SoLoNOX at inlet temperatures ≤0°F; and (C) Out of SoLoNOx (ii) Calculate the emissions for each operating scenario in Condition 13.3a(i) using Equation 1. (iii) Sum the emissions calculated under Condition 13.3a(ii) b. Calculate and record the rolling 12 consecutive month NOx emissions. Emissions shall be calculated by summing the monthly emissions in Condition 13.3a with the emissions of the preceding 11 consecutive month period.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	13.4. For EU ID 26, the Permittee shall report as follows: a. Include in the operating report required under Condition 67: (i) The rolling 12 consecutive month NOx emissions, and individual monthly NOx emissions for the past 12 months, in tons; and (ii) The total hours of operation in each operating scenario in Condition 13.3a(i)(A) through 13.3.a(i)(C). b. Report in accordance with Condition 66 if 12-month rolling NOx emissions for EU ID 26 exceed the limit set in Condition 13. 13.5. Data capture and recording under Condition 13.1, and calculations and recording under Condition 13.3 may be electronic. All records shall be in a form suitable and readily available to expeditious inspection and review.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
14	The Permittee shall avoid project classification under 18 AAC 50.036(a) by limiting VOC emissions for EU ID 26 to no more than 39 tpy. 14.1. Comply with Condition 13.1. 14.2. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month: a. Calculate the VOC emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 13.3a(i) through 13.3.a(iii). b. Calculate and record the rolling 12 consecutive month VOC emissions. Emissions shall be calculated by summing the monthly emissions in Condition 14.2.a with the emissions from the preceding 11 consecutive month period.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	14.3. For EU ID 26, the Permittee shall report as follows: a. Include in the operating report required in Condition 67: (i) The rolling 12 consecutive month VOC emissions, and individual monthly VOC emissions for the past 12 months, in tons; and (ii) Hours of operation as required by Condition 13.4.a(ii) b. Report in accordance with Condition 66 if 12-month rolling VOC emissions for EU ID 26 exceed the limit in Condition 14. 14.4. Data capture and recording under Condition 14.1, and calculations and recording under Condition 14.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
15	The Permittee shall avoid project classification under 18 AAC 50.036(a) by limiting CO emissions for EU ID 26 to no more than 99 tpy. 15.1. Comply with Condition 13.1. 15.2. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month: a. Calculate the CO emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 13.3a(i) through 13.3.a(iii). b. Calculate and record the rolling 12 consecutive month CO emissions. Emissions shall be calculated by summing the monthly emissions in Condition 15.2.a with the emissions from the preceding 11 consecutive month period.	In Compliance	Field Verification/Interview EU ID 26 has not been installed

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
15	15.3. For EU ID 26, the Permittee shall report as follows: a. Include in the operating report required in Condition 67: (i) The rolling 12 consecutive month CO emissions, and individual monthly CO emissions for the past 12 months, in tons; and (ii) Hours of operation as required by Condition 13.4.a(ii) b. Report in accordance with Condition 66 if 12-month rolling CO emissions for EU ID 26 exceed the limit in Condition 15. 14.4. Data capture and recording under Condition 15.1, and calculations and recording under Condition 15.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
16	The Permittee shall avoid project classification under 18 AAC 50.036(a) by limiting SO_2 emissions for EU ID 26 to no more than 7.9 tpy. 16.1. Limit the hydrogen sulfide (H_2S) concentration of fuel gas burned in EU ID 26 to no more than 650 parts per million volume (ppmv). 16.2. Monitor, record, and report the hydrogen sulfide concentration of the fuel gas burned in EU ID 26 as specified in Conditions 10.6, 10.7, and 10.8.b. 16.3. Report in accordance with Condition 66 whenever the fuel combusted causes sulfur compounds to exceed the limit in Condition 16. 16.4. Comply with Condition 17.1.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
17	The Permittee shall limit the increase in NOx and SO_2 emissions to no more than 10 tpy each: 17.1. Remove EU ID 24 from service prior to EU ID 26 becoming fully operational. Report in the first operating report required under Condition 67: a. The date EU ID 24 was removed from service; b. The installation date of EU ID 26; and c. The date EU ID 26 became fully operational.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
18	Fuel Oil Sulfur Content: EU IDs 13 and 14. Do not burn fuel oil with sulfur content greater than 0.3 percent sulfur by weight. 18.1. Monitor, record, and report in accordance with Conditions 10.2, 10.3, 10.5.b(i), 10.5.b(ii). 18.2. Report in accordance with Condition 66 anytime a limit in Condition 18 is exceeded.	In Compliance	Records Review
19	**Fuel Consumption Cap: EU IDs 13 and 14** 19.1. Limit operations of EU ID 13, East Crane Engine, to 66,900 gallons fuel oil per 12-month rolling period. 19.2. Limit operations of EU ID 14, West Crane Engine, to 24,400 gallons fuel oil per 12-month rolling period.	In Compliance	Records Review
	19.3. Record fuel consumption by EU IDs 13 and 14 as follows. a. When 12-month rolling total fuel consumption is less than 90% of total allowable fuel consumption, record fuel consumption no less than once each month for each unit. b. When rolling total fuel consumption is greater than 90% of the allowable limit, record fuel consumption no less than once each week.	In Compliance	Records Review
	19.4. Include monthly 12-month rolling totals for each of EU IDs 13 and 14 in the operating report required by Condition 67.	In Compliance	Records Review
	19.5. Report in accordance with Condition 66 anytime a limit in Condition 19.1 or 19.2 is exceeded.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
Stationary Source-Wide Specific Requirements			
Insignificant Emission Units			
20	For emission 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: 20.1. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes. 20.2. 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. 20.3. 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 average over three hours. 20.4. General MR&R for Insignificant Emission Units a. The Permittee shall submit the compliance certifications of Condition 68 based on reasonable inquiry for Condition 12; b. The Permittee shall comply with the requirements of Condition 49; c. The Permittee shall report in the operating report required by Condition 67 if an emission unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds; d. No other monitoring, recordkeeping or reporting is required.	In Compliance	Records Review and Field Verification/Interview
Section 4. Federal Requirements			
Emission Units Subject to Federal NSPS Subpart A			
21	**NSPS Subpart A Notification.** For any affected facility or existing facility regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish to the Department and EPA written or electronic notification of: 21.1. the date that construction or reconstruction of an affected facility commences postmarked no later than 30 days after such date; 21.2. the actual date of initial startup of an affected facility postmarked within 15 days after such date; 21.3. 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), postmarked 60 days or as soon as practicable before the change is commenced and shall include: a. information describing the precise nature of the change; b. present and proposed emission control systems; c. productive capacity of the facility before and after the change; and d. the expected completion date of the change; 21.4. 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: 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.	In Compliance	Records Review
22	**NSPS Subpart A Startup, Shutdown, & Malfunction Requirements.** The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 1, 2, and 26, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1, 2, and 26 is inoperative.	In Compliance	Field Verification/Interview

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
23	**NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.** The Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP) (excess emissions are defined in applicable subparts and limits are in Conditions 30 and 32.3) and-or summary report form (see Condition 24). The Permittee shall submit the report(s) to the EPA and Department semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the EPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information: 23.1. The date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period. Magnitude of excess emissions computed in accordance with Condition 22, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period. 23.2. Specific identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU IDs 1, 2, and 26; the nature and cause of any malfunction, and the corrective action taken or preventative measures adopted. 23.3. The date and time identifying each period during which a Continuous Monitoring System (CMS) was inoperative except for zero and span checks and the nature of any repairs or adjustments. 23.4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.	In Compliance	Records Review
24	**NSPS Subpart A Summary Report Form.** The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 for each pollutant monitored for EU IDs 1, 2, and 26. The report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows: 24.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form unless the EEMSP report described in Condition 23 is requested, or 24.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, then submit a summary report form and the EEMSP described in Condition 23.	In Compliance	Records Review
25	**NSPS Subpart A Performance (Source) Tests.** The Permittee shall conduct initial source tests according to Section 6 and as indicated in this condition on any affected facility within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup, and at such other times as may be required by EPA, and shall provide the Department and EPA with a written report of the results of the source test. The Permittee shall: 25.1. Conduct source tests and reduce data as set out in 40 C.F.R. 60.8(b), and provide the Department copies of any EPA waivers or approvals of alternative methods. 25.2. Conduct source tests under conditions specified by EPA to be based on representative performance of EU IDs 1, 2, and 26. 25.3. Notify the Department and EPA at least 30 days in advance of the source test. 25.4. Provide adequate sampling ports, safe sampling platform(s), safe access to sampling platform(s), and utilities for sampling and testing equipment.	In Compliance	Records Review
26	**NSPS Subpart A Good Air Pollution Control Practice**. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1, 2 and 26 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1, 2 and 26.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
27	**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 29, 30, 31, or 32, 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 12, and 26 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.	N/A	Advisory Provision
28	**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 29, 30, 31, or 32. 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.	In Compliance	Field Verification/Interview
Turbines Subject to NSPS Subpart GG, EU IDs 1 and 2			
29	**NSPS Subpart GG NOx Standard.** The Permittee shall not allow the exhaust gas concentration of NOx from EU IDs 1 and 2 to exceed 176 ppmv at 15 percent O_2 dry exhaust basis.	In Compliance	Records Review
	29.1. **Monitoring.** The Permittee shall comply with the following: a. **Periodic Testing.** For each turbine subject to Condition 29 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Conditions 29.2a(i) or 29.2a(ii). (i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90% of the limit shown in Condition 29, the Permittee shall conduct a NOx and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, according to the criteria below: (A) Within 5 years of the latest performance test, or (B) Within 1 year after exceeding 400 hours of operation in a 12-month period if the last source test occurred greater than 4 years prior to the exceedance.	In Compliance	Records Review Permit deviation was submitted on 8/14/2020. This deviation was caused by the COVID-19 pandemic and meets the intent of the No Action Assurance Memorandum issued by the Alaska Department of Environmental Conservation.
	b. **Substituting Test Data**. The Permittee may use a Method 20 or Method 7E test under Condition 29.1a performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if (i) The Permittee demonstrates that test results are less than or equal to 90 percent of the emission limit of Condition 29, and are projected under Condition 29.1c to be less than 90 percent of the limit at maximum load; (ii) For any source test done after the issuance date of this permit, the Permittee identifies in a source test plan under Condition 58 (A) the turbine to be tested; (B) the other turbines in the group that are to be represented by the test; and (C) why the turbine to be tested is representative, including that each turbine in the group (1) is located at a stationary source operated and maintained by the Permittee; (2) is tested under close to identical ambient conditions; (3) is the same make and model and has identical injectors and combustor; (4) uses the same fuel type from the same source. (iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90% of the emission limit of Condition 29.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
29	c. **Load.** (i) The Permittee shall conduct all tests under Condition 29.1 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test. (ii) Demonstrate in the source test plan for any test performed after the issue date of this permit whether the test is scheduled when maximum NOx emissions are expected. (iii) If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data, (A) for each such turbine the Permittee shall provide to the Department as an attachment to the source test report (1) additional test information from the manufacturer or from previous testing of units in the group of turbines; if using previous testing of the group of turbines, the information must include all available test data for the turbines in the group, and (2) a demonstration based on the additional test information that projects the test results from Condition 29.1 to predict the highest load at which emissions will comply with the limit in Condition 29; (B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit of Condition 29; (C) the Permittee shall comply with a written finding prepared by the Department that (1) the information is inadequate for the Department to reasonably conclude that compliance is assured at any load greater than the test load, and that the Permittee must not exceed the test load; (2) the highest load at which the information is adequate for the Department to reasonably conclude that compliance assured is less than maximum load, and the Permittee must not exceed the highest load at which compliance is predicted, or (3) the Permittee must retest during a period of greater expected demand on the turbine; and	In Compliance	Records Review
	(D) the Permittee may revise a load limit by submitting results of a more recent Method 20 or Method 7E test done at a higher load and, if necessary, the accompanying information and demonstration described in Condition 29.1c(iii)(A); the new limit is subject to any new Department finding under Condition 29.1c(iii)(C). (iv) In order to perform a Method 20 or Method 7E emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 29.1c(iii). (v) For the purposes of Conditions 29.1 through 29.3, maximum load means the hourly average load that is the smallest of (A) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions; (B) the highest load allowed by an enforceable condition that applies to the turbine; or (C) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.	In Compliance	Records Review
	29.2. **Recordkeeping.** The Permittee shall keep records as follows: a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 29.1c(iii) does not show compliance with the limit of Condition 29 at maximum load. (i) The Permittee shall keep records of (A) load; or (B) as approved by the Department, surrogate measurements for load and the method for calculating load from those measurements. (ii) Records in Condition 29.2a shall be hourly or otherwise as approved by the Department. (iii) Within one month after submitting a demonstration under Condition 29.1c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 29.1c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule. b. For any turbine subject to Condition 29 that will operate less than 400 hours in any 12 consecutive months, keep monthly records of the hours of operation.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
29	29.3. **Reporting.** The Permittee shall keep records as follows: a. In each operating report under Condition 67, the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 29.1c(iii) (i) the load limit; (ii) the turbine identification; and (iii) the highest load recorded under Condition 29.2a during the period covered by the operating report. b. In each operating report under Condition 67 for each turbine for which Condition 29.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify (i) the turbine; (ii) the highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and (iii) any turbine that operated for 400 or more hours. c. The Permittee shall report under Condition 66 if (i) a test result exceeds the emission standard; (ii) Method 20 or Method 7E testing is required under Conditions 29.1.a(i) or 29.1a(ii) but not performed, or (iii) the turbine was operated at a load exceeding that allowed by Conditions 29.1c(iii)(B) and 29.1c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.	In Compliance	Records Review
30	**NSPS Subpart GG Sulfur Standard**. For EU IDs 1 and 2, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).	In Compliance	Records Review
	30.1. **Monitoring**. The Permittee shall monitor compliance with the standards listed in this condition, as follows: a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 30.1.b. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 30.2. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 C.F.R. 60.17), which measure the major sulfur compounds may be used.. b. The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration: (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or (ii) Representative fuel sampling data, which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in 40 C.F.R. 75, Appendix D, Section 2.3.1.4 or 2.3.2.4 is required. c. For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule	In Compliance	Records Review
	d. The frequency of determining the sulfur content of the fuel shall be as follows: (i) Gaseous fuel. For owners and operators that elect not to demonstrate sulfur content using options in Condition 30.1.b, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day. (ii) Custom schedules. Notwithstanding the requirements of Condition 30.1.d(i), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 C.F.R. 60.334(i)(3)(i) and (i)(3)(ii), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 30. The two custom sulfur monitoring schedules set forth in 40 C.F.R. 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
30	30.2. **Test Methods and Procedures.** If the owner or operator is required under Condition 30.1.d to periodically determine the sulfur content of the fuel combusted in the turbine, the owner or operator shall analyze the samples for the total sulfur content of the fuel as follows: For gaseous fuel, use ASTM D1072-80, 90 (Reapproved 1994); D33246-81, 92, 96; D4468-85 (reapproved 200); or D6667-01 (all of which are incorporated by reference, see 40 C.F.R. 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator. b. The fuel analyses may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.	In Compliance	Records Review
	30.3. **Recordkeeping.** The Permittee shall keep records as required by Conditions 30.1 and 30.2, in accordance with Condition 62.	In Compliance	Records Review
	30.4. **Reporting.** For each affected unit that elects to periodically determine the fuel sulfur content under Condition 30.1, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 23, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 C.F.R. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows: a. If the owner or operator is required to monitor the sulfur content of the fuel under Condition 30.1: (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any fuel sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. (ii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.	In Compliance	Records Review
Engines Subject to Federal NSPS Subpart IIII			
31	For EU IDs 8a, 9a, 10a, and 23a, the Permittee shall comply with all applicable requirements in 40 C.F.R. 60 Subpart IIII for stationary compression ignition (CI) internal combustion engines (ICE) who construction, modification, or reconstruction commences after July 11, 2005. 31.1. The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in Conditions 31.3 and 31.4 over the entire life of the engine. 31.2. The Permittee shall comply with the applicable provisions of NSPS Subpart A as specified in Table 8 to NSPS Subpart IIII. 31.3. For EU IDs 8a, 9a, and 10a, the Permittee must comply with the following emission standards in 40 C.F.R. 89.112. a. NMHC + NOx: 6.4 g/kW-hr b. CO: 3.5 g/kW-hr c. PM: 0.20 g/kW-hr 31.4. For EU ID 23a, the Permittee must comply with the following emission standards in 40 C.F.R. 89.112. a. NMHC + NOx: 4.0 g/kW-hr b. CO: 3.5 g/kW-hr c. PM: 0.20 g/kW-hr 31.5. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must meet the not-to-exceed (NTE) standards as indicated in 40 C.F.R. 60.4212, for performance tests conducted in-use.	In Compliance	Records Review
	31.6. NSPS Subpart IIII Monitoring Requirements For EU ID 23a, the Permittee must install a non-resettable hour meter prior to the startup of the engine.	In Compliance	Field Verification/Interview

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
31	NSPS Subpart IIII Compliance Requirements 31.7. For EU IDs 8a, 9a, 10a, and 23a, the Permittee shall comply with the following: a. You must do all of the following, except as permitted under Condition 31.7.c (i) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (ii) Change only these emission-related settings that are permitted by the manufacturer; and (iii) Meet the requirements of 40 C.F.R. parts 89, 94 and/or 1068, as they apply to you. b. You must comply with the emission standards in Conditions 31.3 and 31.4 by purchasing an engine certified to the emission standards in Conditions 31.3 and 31.4 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 31.7.c. c. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer' s emission-related written instructions, or you change emission-related settings in a way that us not permitted by the manufacturer, you must demonstrate compliance as follows: (i) You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.	In Compliance	Records Review
	31.8. For EU ID 23a, the Permittee shall comply with the following: a. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in Conditions 31.8.a(i) through 31.8.a(iii). In order for the engine to be considered an emergency stationary ICE under NSPS Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in Conditions 31.8.a(i) through 31.8.a(iii), is prohibited. If you do not operate the engine according to the requirements in Conditions 31.8.a(i) through 31.8.a(iii), the engine will not be considered an emergency engine under NSPS Subpart IIII 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) You may operate your emergency stationary ICE for any combination of the purposes specified in Conditions 31.8.a(ii)(A) through 31.8.a(ii)(C) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 31.8.a(iii) counts as part of the 100 hours per calendar year allowed by this condition. (A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (B) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3. (C) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
31	(iii) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 31.8.a(ii). Except as provided in 40 C.F.R 60.4211(f)(3)(i), the 50 hours per calendar year for nonemergency 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.	In Compliance	Records Review
	NSPS Subpart IIII Test Methods and Other Procedures 31.9. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must conduct performance tests pursuant to NSPS Subpart IIII according to 40 C.F.R. 60.4212(a) through (c).	In Compliance	Records Review
	NSPS Subpart IIII Recordkeeping and Reporting Requirements 31.10. For EU ID 23a, the Permittee shall comply with the following: a. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. b. If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 31.8.a(ii)(B) and 31.8.a(ii)(C) or that operates for the purposes specified in 40 C.F.R. 60.4211(f)(3)(i), you must submit an annual report according to the requirements in 40 C.F.R. 60.4214(d)(1) through (3). (i) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. (ii) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 C.F.R. 60.4.	In Compliance	Records Review
Turbines Subject to Federal NSPS Subpart KKKK			
32	For EU ID 26, the Permittee shall comply with all applicable requirements of NSPS Subpart KKKK for stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. NSPS Subpart KKKK General Compliance Requirements 32.1. For EU ID 26, the Permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	32.2. **NSPS Subpart KKKK NOx Standard.** For EU ID 26, the Permittee shall comply with the following: a. The Permittee must not allow the exhaust gas concentration of NOx from EU ID 26 to exceed: (i) 42 ppm at 15 percent O2 dry exhaust basis or 290 ng/J of useful output (2.3 lb/MWh). (ii) 150 ppm at 15 percent O2 dry exhaust basis or 1,100 ng/J of useful output (8.7 lb/MWh) when operating at less than 75 percent of peak load or at temperatures less than 0°F.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	b. **Monitoring, Recordkeeping, and Reporting.** The Permittee must: (i) Perform annual performance tests in accordance with Condition 32.2.c to demonstrate continuous compliance. If the NOx emission result from the performance test is less than or equal to 75 percent of the NOX emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, you must resume annual performance tests. (ii) Keep records of all performance test data in accordance with Condition 62 (iii) Submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.	In Compliance	Field Verification/Interview EU ID 26 has not been installed

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
32	c. **Performance Tests**. The Permittee must conduct an initial performance test, as required in Condition 25. Subsequent NOx performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test) as required in Condition 32.2.b(i). (i) The Permittee may use either one of the two methodologies described below in Conditions 32.2.c(i)(A) and 32.2.c(i)(B) to conduct performance tests. For each test run: (A) Measure the NOx concentration (in parts per million (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 NOX emission rate. (B) Measure the NOx 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 (or flow meters), 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 NOX 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 NOx emission rate in lb/MWh. (ii) Sampling traverse points for NOX and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	(iii) Notwithstanding Condition 32.2.c(ii), you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of 40 C.F.R. 60 if the following conditions are met: (A) You may perform a stratification test for NOX and diluent pursuant to the procedures specified in section 6.5.6.1(a) through (e) of appendix A of 40 C.F.R. 75. (B) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test: (1) If each of the individual traverse point NOX 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 ±5ppm or ±0.5 percent CO2 (or O2) 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 NOX concentration during the stratification test; or (2) For turbines with a NOx standard greater than 15 ppm @ 15% O2, you may 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 NOX 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 ±3ppm or ±0.3 percent CO2 (or O2) from the mean for all traverse points. (iv) The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes. (A) Compliance with the applicable emission limit in Condition 32.2 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NOx emission rate at each tested level meets the applicable emission limit in Condition 32.2. (B) The ambient temperature must be greater than 0 °F during the performance test.	In Compliance	Field Verification/Interview EU ID 26 has not been installed

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
32	32.3. **NSPS Subpart KKKK SO2 Standard.** The Permittee must not burn in EU ID 26 any fuel which contains total sulfur with potential sulfur emissions in excess of 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input. a. **Monitoring**. The Permittee shall monitor compliance with the standard in Condition 32.3 as follows: (i) You must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 32.3.a(ii). The sulfur content of the fuel must be determined using total sulfur methods described in Condition 32.3.b. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 C.F.R. 60.17), which measure the major sulfur compounds, may be used. (ii) You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input. You must use one of the following sources of information to make the required demonstration: (A) 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 for natural gas use is 140 grains of sulfur or less per 100 standard cubic feet; or (B) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 C.F.R. 75 is required. (iii) The frequency of determining the sulfur content of the fuel must be as follows: (A) Gaseous fuel. If you elect not to demonstrate sulfur content using options in Condition 32.3.a(ii), and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day. (B) Custom schedules. Notwithstanding the requirements of Condition 32.3.a(iii)(A), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 C.F.R. 60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 32.3	In Compliance	Field Verification/Interview EU ID 26 has not been installed
	b. **Test Methods and Procedures.** If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see 40 C.F.R. 60.17) for natural gas. The fuel analyses of this condition may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using: (i) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 C.F.R. 60.17).	In Compliance	Field Verification/Interview EU ID 26 has not been installed
32	c. **Recordkeeping**. Keep records as required by Conditions 32.3.a and 32.3.b, and in accordance with Condition 62. d. **Reporting.** For each affected unit required to periodically determine the fuel sulfur content under Condition 32.3.a, the owner or operator must submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 23, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions must be reported for all periods of unit operation, including startup, shutdown and malfunction. (i) If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows: (A) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.	In Compliance	Field Verification/Interview EU ID 26 has not been installed

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
Emission Units Subject to Federal NSESHAP Subpart A			
33	**NESHAP Subpart A Requirements.** For EU IDs 13, 14, and 21, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.	In Compliance	Records Review
Engines Subject to Federal NESHAP Subpart ZZZZ			
34	For EU IDs 8a, 9a, 10a, 13, 14, 21, and 23a, the Permittee shall comply with all applicable requirements of NESHAP Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions. 34.1. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must meet the requirements of 40 C.F.R. 63 by meeting the requirements of Condition 31. No further requirements apply under 40 C.F.R. 63.	In Compliance	Records Review
	34.2. For EU IDs 13, 14, and 21, the Permittee shall comply with the following: a. You must meet the following requirements, except during periods of startup: (i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first; (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. b. During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. c. Sources have the option to utilize an oil analysis program as described in Condition 34.4 in order to extend the specified oil change requirement in Condition 34.2.a(i).	In Compliance	Records Review
	34.3. For EU IDs 13, 14, and 21, the Permittee shall comply with the following: a. You must be in compliance with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times. b. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	In Compliance	Records Review
34	34.4. For EU IDs 13, 14, and 21, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 34.2.a. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 34.2.a. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
	34.5. For EU IDs 13, 14, and 21, the Permittee shall comply with the following: a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 34.2 according to methods specified in Condition 34.5.a(i) or 34.5.a(ii). (i) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or (ii) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. b. You must also report each instance in which you did not meet the requirements in Table 8 to NESHAP Subpart ZZZZ that apply to you. 34.6. For EU IDs 13, 14, and 21, the Permittee must report all deviations as defined in NESHAP Subpart ZZZZ in the semiannual monitoring report required by Condition 67.	In Compliance	Records Review
	34.7. For EU IDs 13, 14, and 21, the Permittee shall comply with the following: a. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. b. Your records must be in a form suitable and readily available for expeditious review according to 40 C.F.R. 63.10(b)(1). c. As specified in 40 C.F.R. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. d. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. 63.10(b)(1).	In Compliance	Records Review
General Federal Requirements			
35, 36	**Asbestos NESHAP.** The Permittee shall comply with the 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. Subpart F – Recycling and Emissions Reduction 36.1. Refrigerant Recycling and Disposal. The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F. Subpart G – Significant New Alternatives Policy 36.2. 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). Subpart H – Halon Emissions Reduction 36.3. 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).	In Compliance	Field Verification/Interview
37	**NESHAPs Applicability Determinations** The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b) and 63.10(b)(3). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the Permittee 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). 37.1. 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 §63.9(b).	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
38	**NSPS and NESHAP Reports.** The Permittee shall: 38.1. **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 67 for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the reports submitted during the reporting period; and 38.2. **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.	In Compliance	Records Review
Section 5. General Conditions			
Standard Terms and Conditions			
39	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.	N/A	Advisory Provision
40	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.	N/A	Advisory Provision
41	The permit does not convey any property rights of any sort, nor any exclusive privilege.	N/A	Advisory Provision
42	**Administration Fees**. The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-405.	In Compliance	Records Review
43	**Assessable Emissions**. 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 assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of: 43.1 the stationary source's assessable potential to emit of 671 TPY; or 43.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon credible evidence of actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by: 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.	In Compliance	Records Review
44	**Assessable Emission Estimates.** Emission fees will be assessed as follows: 44.1. no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Ste 303, Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or 44.2. if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 43.1.	In Compliance	Records Review
45	**Good Air Pollution Control Practice.** The Permittee shall do the following for EU IDs 3 through 7, and 15 through 20: a. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures; b. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and c. keep a copy of either the manufacturer's or the operator's maintenance procedures.	In Compliance	Records Review
46	**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.	In Compliance	Field Verification/Interview

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
47	**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. 47.1. 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 47.1 or to address the results of Department inspections that found potential problems; and (ii) to prevent future dust problems. 47.2. The Permittee shall report according to Condition 49.	In Compliance	Field Verification/Interview
48	**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 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.	In Compliance	Field Verification/Interview
49	**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. 49.1. Monitoring, Recordkeeping, and Reporting for Condition 49: a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 66. b. 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 49. 49.2. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if a. 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 49; or b. the Department notifies the Permittee that it has found a violation of Condition 49.	In Compliance	Records Review and Field Verification/Interview
49	49.3. 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 49; and d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.	In Compliance	Records Review and Field Verification/Interview
	49.4. With each stationary source operating report under Condition 67, the Permittee shall include a brief summary report which must include a. the number of complaints received; b. the number of times the Permittee or the Department found corrective action necessary; c. the number of times action was taken on a complaint within 24 hours; and d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours. 49.5. 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.	In Compliance	Records Review and Field Verification/Interview
50	**Technology-Based Emission Standard.** If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard listed in Conditions 29, 30, 31, or 36 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 66 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 66.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
Open Burning Requirements			
51	**Open Burning.** The Permittee shall not conduct open burning at the stationary source.	In Compliance	Field Verification/Interview
Section 6. General Source Testing and Monitoring Requirements			
52	**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.	In Compliance	Records Review
53	**Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing 53.1. at a point or points that characterize the actual discharge into the ambient air; and 53.2. at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.	In Compliance	Records Review
54	**Reference Test Methods**. The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit: 54.1. 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. 54.2. 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. 60. 54.3. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60. 54.4. 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 and may use the form in Section 11 to record data. 54.5. 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. 54.6. Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202. 54.7. 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.	In Compliance	Records Review
55	**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 source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).	N/A	Advisory Provision
56	**Test Exemption.** The Permittee is not required to comply with Conditions 58, 59, and 60 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.1) or Smoke/No Smoke Plan (Condition 2.2).	N/A	Advisory Provision
57	**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.	In Compliance	Records Review
58	**Test Plans**. Except as provided in Condition 56, 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 source 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 52 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.	In Compliance	Records Review
59	**Test Notification.** Except as provided in Condition 56, 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.	In Compliance	Records Review
60	**Test Reports**. Except as provided in Condition 56, 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 63. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
61	**Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 6 and 20.2, the three-hour average is determined using the average of three one-hour test runs.	In Compliance	Records Review
Section 7. General Recordkeeping and Reporting Requirements			
Recordkeeping Requirements			
62	**Recordkeeping Requirements**. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including: 62.1. copies of all reports and certifications submitted pursuant to this section of the permit; and 62.2. 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.	In Compliance	Records Review
Reporting Requirements			
63	**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. 63.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and b. the person providing the electronic signature has made an agreement, with the certifying authority described in Condition 63.1.a that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.	In Compliance	Records Review
64	**Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 63.	In Compliance	Records Review
65	**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.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
66	**Excess Emissions and Permit Deviation Reports.** 66.1. Except as provided in Condition 49, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows: a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report (i) 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 non routine repair that causes emissions in excess of a technology based emission standard; c. report all other excess emissions and permit deviations (i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in Condition 66.1c(ii) and 66.1.c(iii); and (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 66.1.c(i); and (iii) for failure to monitor, as required in other applicable conditions of this permit. 66.2. When reporting excess emissions or permit deviations, the Permittee must report using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or https://myalaska.state.ak.us/deca/air/airtoolsweb/, or if the Permittee prefers, the form contained in Section 13 of this permit. The Permittee must provide all information called for by the form that is used. 66.3. If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.	In Compliance	Records Review
67	**Operating Reports**. During the life of this permit, the Permittee shall submit an operating report 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. 67.1. The operating report must include all information required to be in operating reports by other conditions of this permit.	In Compliance	Records Review
	67.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 67.1, the Permittee shall identify a. the date of the deviation; b. the equipment involved; c. the permit condition affected; d. a description of the excess emissions or permit deviation; and e. any corrective action or preventive measures taken and the date of such actions; or 67.3. When excess emissions or permit deviations have already been reported under Condition 66, the Permittee may cite the date or dates of those reports.	In Compliance	Records Review
	67.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.1e and 2.2c, 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. 67.5. **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.	In Compliance	Records Review

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
68	**Annual Compliance Certification.** Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report. 68.1. 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; 68.2. **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. 68.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA Region 10, Mail Stop: OAC- 101, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101.	In Compliance	Records Review
69	**Emission Inventory Reporting.** The Permittee shall submit to the Department reports of actual emissions, by emission unit, of CO, NH3, NOX, PM10, PM2.5, SO2, VOCs and lead (Pb) (and lead compounds) using the form in Section 14 of this permit, as follows: 69.1. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds: a. 250 tons per year (TPY) of NH3, PM10, PM2.5 or VOCs; or b. 2500 TPY of CO, NOX or SO2. 69.2. Every third year by April 30 if the stationary source's potential to emit for the previous calendar year equals or exceeds: a. 0.5 tons per year of actual lead (Pb), or b. 1000 TPY of CO; or c. 100 TPY of SO2, NH3, PM10, PM2.5, NOX or VOCs. 69.3. For reporting under Condition 69.2, the Permittee shall report in 2015 for calendar year 2014, 2018 for calendar year 2017, 2021 for calendar year 2020, etc., in accordance with the Environmental Protection Agency set schedule. 69.4. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 for each stack associated with an emission unit.	In Compliance	Records Review
Section 8. Permit Changes and Renewal			
70	**Permit Applications and Submittals.** The Permittee shall comply with the following requirements for submitting application information to the EPA Region 10: 70.1. 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; 70.2. The information shall be submitted to Part 70 Operating Permit Program, US EPA Region 10, Mail Stop: OAW-150, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. 70.3. 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 70.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.	In Compliance	Records Review

Attachment A-1: Compliance Certification

Monopod Platform Operating Permit No. AQ0067TVP03
TV Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
71	**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.	N/A	Advisory Provision
72	**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. Part 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: 72.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition; 72.2. 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; 72.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f); 72.4. The Permittee shall keep a record describing changes made at the 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.	In Compliance	Records Review
73	**Operational flexibility.** The Permittee may make 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): 73.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change. 73.2. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, 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. 73.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 73.	In Compliance	Records Review and Field Verification/Interview
74	**Permit Renewal.** To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than **[February 5, 2023]** and no later than **[February 5, 2024]**. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the 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).	In Compliance	Records Review
Section 9. Compliance Requirements			
General Compliance Requirements			
75	Compliance with permit terms and conditions is considered to be compliance with those requirements that are 75.1. included and specifically identified in the permit; or 75.2. determined in writing in the permit to be inapplicable.	N/A	Advisory Provision
76	The Permittee must comply with each permit term and condition. 76.1. For applicable requirements with which the stationary source is on compliance, the Permittee shall continue to comply with such requirements. 76.2. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 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 a. an enforcement action; b. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or c. denial of an operating permit renewal application.	N/A	Advisory Provision
77	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.	N/A	Advisory Provision

Attachment A-1: Compliance Certification

Monopod Platform Operating Permit No. AQ0067TVP03
TV Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	**Summary/Description**		[40 C.F.R. 71.6 (c) (5) (iii) (B)]
78	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 78.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept; 78.2. have access to and copy any records required by the permit; 78.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and 78.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.	In Compliance	Field Verification/Interview
79	For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.	N/A	Advisory Provision

Attachment A-2: Additional Application Requirements for Sources within the Regional Haze Special Protection Area

Per 18 AAC 50.265, an application for a construction permit, new permit, permit renewal, or permit modification must include the following information.

18 AAC 50.265(4)(A)

Per 18 AAC 50.265(4)(A), the anticipated equipment major maintenance schedules are currently unavailable.

18 AAC 50.265(4)(B)

Per 18 AAC 50.265(4)(B), the projected equipment life of each significant emissions unit located at the stationary source is currently unavailable.

18 AAC 50.265(4)(C)

The existing stationary source was included in the baseline analysis the Alaska Department of Environmental Conservation (ADEC) prepared for developing 18 AAC 50.265. According to the State Air Quality Control Plan Volume II, Section III.K.13.F, the Regional Haze Rule requires the ADEC to submit a plan to make reasonable progress towards natural visibility conditions at Class I areas. To achieve this goal, the ADEC is required to develop a long-term strategy that must "include emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress'' and "identify all anthropogenic sources of visibility impairment considered by the state in developing its long-term strategy". In developing these goals, the ADEC selected sources and considered four factors to evaluate the potential control measures for the selected sources: 1) cost of compliance; 2) time necessary for compliance; 3) energy and non-air quality environmental impacts; and 4) remaining useful life. To select sources for evaluation, the ADEC used a two-step approach. The initial step (step one) involved an area of influence (AOI) and weighted emissions potential (WEP) analysis. The final step (step two) involved a Q/d analysis (quantity of actual emissions in tons per year divided by distance in kilometers). The Monopod Platform was eliminated from the analysis in step two. In the State Air Quality Control Plan Volume II, Section III.K, Appendix III.K.13.F, ADEC states that "ADEC, upon consideration of the former limited analysis, concludes that Hilcorp is employing the most practical and effective control regime for their SO_2 emissions at the Monopod Platform stationary source" (see Pages III.K.13.F-20 through 24). Additional information about this ADEC regional haze determination is available on the cited SIP pages.

18 AAC 50.265(4)(D)

Per 18 AAC 50,265(4)(D), no mitigation measures have been identified as necessary to minimize any potential adverse impacts on the reasonable further progress goals for Class I areas, as identified in the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030.

Section B

Emission Units

Form B:	Emission Unit Listing for This Application
Form B2:	Emission Unit Detail Form – External Combustion Equipment
Form B2:	Emission Unit Detail Form – Internal Combustion Equipment
Form B5:	Emission Unit Detail Form – Miscellaneous Emission Units

FORM B
Emission Unit Listing For This Application

Permit Number: AQ0067TVP03

EMISSION UNIT LISTING: New, Modified, Previously Unpermitted, Replaced, Deleted					
Emission Unit ID Number	Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date	Notes
Emission Units To Be ADDED By This Application (New, Previously Unpermitted, or Replacement)					
Emission Units To Be MODIFIED By This Application					
Emission Units To Be DELETED By This Application					
24	Backup AC Generator Drive #6	Caterpillar D-398 Engine	500 kW	Unknown	Unit has been removed from the source.
N/A	Clayton Sigma Fire	Clayton Boiler	50 hp	2013	Insignificant unit has been removed from the source.

SIGNIFICANT EMISSION UNIT LISTING: Title V permitted emission units that have not been modified				
Emission Unit ID Number	Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date
1	Gas Compressor Set #1	Solar Centaur T-4500 Turbine	4,400 hp	6/1995
2	Gas Compressor Set #2	Solar Centaur T-4500 Turbine	4,400 hp	4/1996
3	AC Generator #1 Drive	Solar Saturn Turbine	750 kW	1969
4	Gas Lift Compressor	Solar Saturn Turbine	1,100 hp	1972
5	AC Generator #2 Drive	Solar Saturn Turbine	750 kW	1973
6	Waterflood Pump #1 Drive	Solar Saturn Turbine	1,100 hp	1970
7	Waterflood Pump #2 Drive	Solar Saturn Turbine	1,100 hp	1970
8a	Drill Generator #1	MTU 12V4000G73 Engine	1,105 kW	2011
9a	Drill Generator #2	MTU 12V4000G73 Engine	1,105 kW	2011
10a	Drill Generator #3	MTU 12V4000G73 Engine	1,105 kW	2011
13	East Crane	Caterpillar 3406B-DITA Engine	420 hp	1996
14	West Crane	Detroit Diesel 671 Engine	230 hp	1997
15	Boiler	Weil-McLain Boiler 88	4.763 MMBtu/hr	1992
16	TEG Dehydration Unit	Glycol Regenerator	10 MMscf(raw)/ day	1966
17	Low Pressure Flare – NW	Flare (LP)	91.5 MMscf/yr	1966
18	High Pressure Flare – NW	Flare and Pilot (HP)		1966
19	Low Pressure Flare – South	Flare (LP)		1966
20	High Pressure Flare – South	Flare and Pilot (HP)		1966
21	Fire Water Pump Drive	Caterpillar Diesel Engine	85 hp	1971
23a	Emergency Generator Drive #7	Detroit Diesel Series 60 Engine	685 hp	2013
26	Generator Drive (SoLoNOx)	Solar Centaur 40 Turbine	4,400 hp	2014

INSIGNIFICANT EMISSION UNIT LISTING: Insignificant Title V permitted emission units that have not been modified				
Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date	Basis for Insignificant Status
Peerless Boiler (EU ID 22)	Boiler #2	3.8 MMBtu/hr	Unknown	18 AAC 50.326(g)(5) – rating < 4 MMBtu/hr - NSPS Dc – boiler < 10 MMBtu/hr - NESHAP JJJJJJ – gas-fired boiler
Diesel Beam Tank 1	Diesel Beam Tank 1	25,137 gal	1966	18 AAC 50.326(e) – potentials < rates - NSPS K – construction prior to 6/11/1973 - NSPS Ka – construction prior to 5/18/1978 - NSPS Kb – construction prior to 7/23/1984
Diesel Beam Tank 2	Diesel Beam Tank 2	25,137 gal	1966	
Diesel Beam Tank 3	Diesel Beam Tank 3	25,137 gal	1966	
Diesel Beam Tank 4	Diesel Beam Tank 4	25,137 gal	1966	
Crude Oil Ship Tank	Crude Oil Shipping Tank	7,424 gal	1966	
Crude Oil Well Clean Tank	Crude Oil Well Clean Tank	7,138 gal	Unknown	18 AAC 50.326(e) – potentials < rates - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Diesel Day Tank	Diesel Day Tank	513 gal	Unknown	18 AAC 50.326(g)(2) – tank < 1,100 gal and VP < 550 mmHg - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Diesel Day Tank	Diesel Day Tank	56 gal	Unknown	18 AAC 50.326(g)(1) – tank < 260 gal - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Diesel Crane Tank	Diesel Crane Tank	75 gal	Unknown	
Diesel Crane Tank	Diesel Crane Tank	75 gal	Unknown	
Diesel/Demulsifier Tank	Diesel/Demulsifier Tank	550 gal	Unknown	18 AAC 50.326(g)(2) – tank < 1,100 gal and VP < 550 mmHg - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Lube Oil Tank	Lube Oil Tank	500 gal	Unknown	18 AAC 50.326(f)(2) – lube oil storage tank - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Lube Oil Tank	Lube Oil Tank	500 gal	Unknown	
Lube Oil Tank	Lube Oil Tank	500 gal	Unknown	
Lube Oil Tank	Lube Oil Tank	500 gal	Unknown	
Lube Oil Tank	Lube Oil Tank	300 gal	Unknown	
Lube Oil Tank	Lube Oil Tank	80 gal	Unknown	
Used Oil Tank	Used Oil Tank	2,472 gal	Unknown	18 AAC 50.326(g)(3) – tank < 10,000 gal and VP < 80 mmHg at 21 degC - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Hydraulic Oil Tank	Hydraulic Oil Tank	500 gal	Unknown	18 AAC 50.326(g)(2) – tank < 1,100 gal and VP < 550 mmHg - NSPS K, Ka – tank < 40,000 gal - NSPS Kb – tank < 19,800 gal
Paraffin Dispersant Tank	Paraffin Dispersant Tank	550 gal	Unknown	

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	1 and 2
2.	Date installation/construction commenced[1]	EU ID 1 – 6/1995 EU ID 2 – 4/1996
3.	Date installed	EU ID 1 – 6/1995 EU ID 2 – 4/1996
4.	Emission Unit serial number	EU ID 1 – Not available (M-PM-0230) EU ID 2 – 4043041 (M-PM-0280)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Centaur T-4500
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	4,400 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Fuel Gas	37.55 Mscf/hr, each

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Use only gas as fuel (Condition 1.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Use only gas as fuel (Condition 6.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	For gas fuel, analyze a representative sample of the fuel semiannually to determine the sulfur content using an appropriate method under Condition 10.6. Keep records of this analysis and report the fuel sample results in the operating report (Conditions 10.7 and 10.8).
AQ0067TVP03 – Condition 22	40 CFR 60.7(b), Subpart A	NSPS Subpart A	Startup, Shutdown, & Malfunction Requirements.	Yes.	Maintain records of the occurrence of any start-up, shutdown, or malfunction in the operation, any malfunctions of associated air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperative.
AQ0067TVP03 – Condition 23	40 CFR 60.7(c), Subpart A	NSPS Subpart A	Excess Emissions and Monitoring Systems Performance (EEMSP) Report.	Yes.	Submit to the Department and to EPA an EEMSP report. Submit the report(s) semiannually.
AQ0067TVP03 – Condition 24	40 CFR 60.7(c) & (d), Subpart A	NSPS Subpart A	Summary Report Form.	Yes.	Submit one semiannual "summary report form" in the format shown in Figure 1 of 40 CFR 60.7.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 25	40 CFR 60.8(a), (b), (c), (d), & (e), Subpart A	NSPS Subpart A	Performance (Source) Tests.	Yes.	Conduct initial source tests within 60 days after achieving maximum production rate but not later than 180 days after initial startup, and at such other times as may be required by EPA and provide the Department and EPA with a written report of the results of the source test.
AQ0067TVP03 – Condition 26	40 CFR 60.11(d), Subpart A	NSPS Subpart A	Good Air Pollution Control Practice.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 27	40 CFR 60.11(g), Subpart A	NSPS Subpart A	Credible Evidence.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 28	40 CFR 60.12, Subpart A	NSPS Subpart A	Concealment of Emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 29	40 CFR 60.332(a)(2) & (d), Subpart GG	NSPS Subpart GG NO_x Standard	170.4 ppmv at 15 percent O_2, ISO conditions, on a dry basis in the exhaust.	Yes.	Monitor, record, and report in accordance with Conditions 29.1, 29.2, and 29.3.
AQ0067TVP03 – Condition 30	40 CFR 60.333(b), Subpart GG	NSPS Subpart GG Sulfur Standard	0.8 weight percent sulfur in the fuel.	Yes.	Gaseous fuel burned in the units meets the definition of natural gas under 40 CFR 60.331(u).

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart A, § 60.7(a)(5) and (a)(7)	There are no continuous monitoring systems required for these two NSPS affected sources under the applicable subpart.
40 CFR 60 Subpart GG, §60.333(a)	Permittee must comply with either §60.333(a) or (b). Permittee has chosen to comply with §60.333(b).
40 CFR 60 Subpart GG, §60.334(a) and (b)	These requirements apply only to turbines using water injection for NO_x control. These turbines do not use water injection for NO_x control.
40 CFR 60 Subpart GG, §60.334(c)-(g)	These requirements specify optional monitoring methods that the Permittee chooses not to conduct.
40 CFR 60 Subpart GG, §60.334(h)(2)	The Permittee does not claim an allowance for bound nitrogen, therefore nitrogen monitoring is not required.
40 CFR 60 Subpart KKKK	Construction, modification, or reconstruction of the stationary combustion turbines commenced prior to the applicability date of February 18, 2005. A permit shield from NSPS Subpart KKKK only applies to currently installed units until modified reconstructed or replaced.
40 CFR 63 Subpart YYYY	Monopod Platform is not a major source of HAP emissions. Subpart YYYY applies to major sources of HAP emissions. A permit shield from Subpart YYYY only applies to the currently installed units until the source becomes a major source of HAP emissions.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	3, 4, 5, 6 and 7
2.	Date installation/construction commenced[1]	EU ID 3 – 1969 EU ID 4 – 1972 EU ID 5 – 1973 EU ID 6 – 1970 EU ID 7 – 1970
3.	Date installed	EU ID 3 – 1969 EU ID 4 – 1972 EU ID 5 – 1973 EU ID 6 – 1970 EU ID 7 – 1970
4.	Emission Unit serial number	EU ID 3 – 20754 (M-PM-0520) EU ID 4 – 408082 (M-PM-0370) EU ID 5 – 1100 (M-PM-0540) EU ID 6 – Not available (M-PM-1210) EU ID 7 – Not available (M-PM-1220)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Saturn
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	EU IDs 4, 6, and 7 – 1,100 hp EU IDs 3 and 5 – 750 kW (1,006 hp)
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
EU IDs 3 and 5 – Fuel Gas	11.52 Mscf/hr, each
EU IDs 4, 6, and 7 – Fuel Gas	11.67 Mscf/hr, each

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standards	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Use only gas as fuel (Condition 1.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Use only gas as fuel (Condition 6.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	For gas fuel, analyze a representative sample of the fuel annually to determine the sulfur content using an appropriate method under Condition 10.6. Keep records of this analysis and report the fuel sample results in the operating report (Conditions 10.7 and 10.8).
AQ0067TVP03 - Condition 45	18 AAC 50.326(j), 50.346(b)(5)	Good Air Pollution Control Practice	Perform regular maintenance considering the manufacturer's or operator's maintenance procedures; keep records of any maintenance that would have a significant effect on emissions; and keep a copy of either the manufacturer's or operator's maintenance procedures.	Yes.	Annual Compliance Audit.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart GG	These turbines were constructed prior to October 3, 1977 and have not been modified or reconstructed since that time. In the event that these turbines are reconstructed or modified during the term of this permit, they will become subject to the requirements of NSPS Subpart KKKK.
40 CFR 60 Subpart KKKK	Construction, modification, or reconstruction of the stationary combustion turbines commenced prior to the applicability date of February 18, 2005. A permit shield from NSPS Subpart KKKK only applies to currently installed units until modified, reconstructed or replaced.
40 CFR 63 Subpart YYYY	Stationary source is not a major source of HAP emissions. Subpart YYYY applies to major sources of HAP emissions. A permit shield from Subpart YYYY only applies to the currently installed units until the source becomes a major source of HAP emissions.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	8a, 9a, and 10a
2.	Date installation/construction commenced[1]	2011
3.	Date installed	2011
4.	Emission Unit serial number	EU ID 8a – 526105986 (M-PM-1600-1) EU ID 9a – 526105985 (M-PM-1610-1) EU ID 10a – 526106107 (M-PM-1620-1)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	MTU 12V4000G73
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	1,105 kW (1,482 hp)
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	75.71 gal/hr, each

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor using Method 9 Plan and keep records as required in Conditions 2 and 3. Report results in the operating report according to Condition 4.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Conduct source tests as required by Condition 7 and keep records as required by Condition 8. Report excess emissions, as necessary, and results of any source tests in the operating report according to Condition 9.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Monitoring of diesel fuel shall consist of keeping receipts of fuel shipments if the fuel grade requires a sulfur content less than 0.3 percent by weight. If the fuel grade does not require a sulfur content less than 0.3 percent by weight, keep receipts and test fuel according to Condition 10.2. If load of fuel has sulfur content greater than 0.75 percent by weight, calculate SO_2 emissions per Condition 10.4. Report in the operating report and report excess emissions or permit deviations as needed per Condition 10.5.
AQ0067TVP03 – Condition 12	AQ0067MSS02 Condition 5	ORL to Avoid a PSD Permit, NO_X, Indirect PM-2.5, & Ozone	Limit the total combined emissions of NO_X from EU IDs 8a, 9a, and 10a to 56.2 tpy by limiting the combined operation to no more than 6,800 hours per rolling 12-month period.	Yes.	Monitor, record, and report per Condition 12.1.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 28	40 CFR 60.12, Subpart A	NSPS Subpart A	Concealment of Emissions	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 31	40 CFR 60.4200(a)(2), Subpart IIII	NSPS Subpart IIII Emission Standards	Comply with the following emissions standards for each engine: NMHC + NO_X: 6.4 g/kW-hr, CO: 3.5 g/kW-hr, PM: 0.20 g/kW-hr.	Yes.	Purchase an engine certified to the emissions standards. These engines are certified as Tier 2 engines persuant to the regulation for remote areas of Alaska under 40 CFR 60.4216(c).
AQ0067TVP03 – Condition 31.7	40 CFR 60.4211(a)(1)-(3), (c), & (g), Subpart IIII	NSPS Subpart IIII Compliance Requirements	Comply with the the applicable operation and maintenance requirements of NSPS Subpart IIII.	Yes.	Install, configure, operate, and maintain the engines according to the manufactuere's emissions-related written instructions.
AQ0067TVP03 – Condition 34	40 CFR 63.6585, 63.6590, 63.6590(a), Subpart ZZZZ	NESHAP Subpart ZZZZ	Comply with all applicable requirements of NSPS Subpart IIII.	Yes.	Meet the requirements of 40 CFR 63 by meeting the requirements of NSPS Subpart IIII in Condition 31.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart JJJJ	This regulation is for gas-fired engines constructed after June 12, 2006. These units are diesel-fired and therefore are not affected sources.
40 CFR 63 Subpart IIII, §60.4207	The fuel requirements of 40 CFR 60.4207 do not apply to pre-2014 model year stationary CI ICE located in remote areas of Alaska. EU IDs 8a, 9a, and 10a are pre-2014 model year CI ICE located in a remote area of Alaska.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	13
2.	Date installation/construction commenced[1]	1996
3.	Date installed	1996
4.	Emission Unit serial number	2MZ01153 (M-CR-1780)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Caterpillar 3406B-DITA
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	420 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	21.46 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor using Method 9 Plan and keep records as required in Conditions 2 and 3. Report results in the operating report according to Condition 4.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Conduct source tests as required by Condition 7. Report excess emissions, as necessary, and results of any source tests in the operating report according to Condition 9.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Monitoring of diesel fuel shall consist of keeping receipts of fuel shipments if the fuel grade requires a sulfur content less than 0.3 percent by weight. If the fuel grade does not require a sulfur content less than 0.3 percent by weight, keep receipts and test fuel according to Condition 10.2. If load of fuel has sulfur content greater than 0.75 percent by weight, calculate SO_2 emissions per Condition 10.4. Report in the operating report and report excess emissions or permit deviations as needed per Condition 10.5.
AQ0067TVP03 – Condition 18	Permit No. 067CP01 Condition 2	Diesel Fuel Sulfur Content	Do not burn fuel oil with a sulfur content greater than 0.3 percent sulfur by weight.	Yes.	Monitor, record, and report in accordance with Conditions 10.2, 10.3, and 10.5.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 19	Permit No. 067CP01 Condition 3	Fuel Consumption	Limit to 66,900 gallons fuel oil per 12-month rolling period.	Yes.	Record fuel consumption no less than once per month when rolling 12-month consumption is less than 90% of total allowable. Record fuel consumption no less than once per week when rolling 12-month consumption is greater than 90% of total allowable. Report 12-month rolling totals in the operating report. Report in accordance with Condition 66 when a limit is exceeded.
AQ0067TVP03 – Condition 33	40 CFR 63.6665, Table 8, Subpart ZZZZ	NESHAP Subpart A Requirements	Comply with applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Monitoring, recordkeeping and reporting shall follow NESHAP regulations.
AQ0067TVP03 – Condition 34	40 CFR 63.6585 & 63.6590, Subpart ZZZZ	NESHAP Subpart ZZZZ Requirements	Comply with the applicable requirements in NESHAP Subpart ZZZZ.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.2	40 CFR 63.6603(a) & Table 2d, Item 1, Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	Meet the following requirements, except during periods of startup: - Change oil and filter every 1,000 hours of operation or annually, whichever comes first. - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary. - Sources have the option to utilize	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
			an oil analysis program as described in Condition 34.4 in order to extend the oil change requirement.		
AQ0067TVP03 – Condition 34.2	40 CFR 63.6625(h), Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the nonstartup emission limitations apply.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(a)	NESHAP Subpart ZZZZ General Requirements	Comply with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(b)	NESHAP Subpart ZZZZ General Requirements	At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practice for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 34.5	40 CFR 63.6625(e), Table 6, Item 9, Subpart ZZZZ	NESHAP Subpart ZZZZ Requirements for Demonstration of Continuous Compliance with Emission Limitations, Operating Limitations, and Other	Operate and maintain the engine according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide to the extent practicable for the	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
		Requirements	maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.		

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart IIII	This regulation is for diesel-fired engines constructed after July 11, 2005. These units were constructed before July 11, 2005 and therefore are not affected sources.
40 CFR 60 Subpart JJJJ	This regulation is for gas-fired engines constructed after June 12, 2006. These units are diesel-fired and were constructed before June 12, 2006 and therefore are not affected sources.
40 CFR 63 Subpart ZZZZ, carbon monoxide (CO) emission limitations	Monopod Platform is not accessible by the Federal Aid Highway System and this engine does not have to meet a numerical CO emission limitation, only operating limits, per 40 CFR 63.6603(b)(1).

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	14
2.	Date installation/construction commenced[1]	1997
3.	Date installed	1997
4.	Emission Unit serial number	Not available (M-CR-1790)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Detroit Diesel 671
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	230 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	11.75 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor using Method 9 Plan and keep records as required in Conditions 2 and 3. Report results in the operating report according to Condition 4.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Conduct source tests as required by Condition 7. Report excess emissions, as necessary, and results of any source tests in the operating report according to Condition 9.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Monitoring of diesel fuel shall consist of keeping receipts of fuel shipments if the fuel grade requires a sulfur content less than 0.3 percent by weight. If the fuel grade does not require a sulfur content less than 0.3 percent by weight, keep receipts and test fuel according to Condition 10.2. If load of fuel has sulfur content greater than 0.75 percent by weight, calculate SO_2 emissions per Condition 10.4. Report in the operating report and report excess emissions or permit deviations as needed per Condition 10.5.
AQ0067TVP03 – Condition 18	Permit No. 067CP01 Condition 2	Diesel Fuel Sulfur Content	Do not burn fuel oil with a sulfur content greater than 0.3 percent sulfur by weight.	Yes.	Monitor, record, and report in accordance with Conditions 10.2, 10.3, and 10.5.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 19	Permit No. 067CP01 Condition 3	Fuel Consumption	Limit to 24,400 gallons fuel oil per 12-month rolling period.	Yes.	Record fuel consumption no less than once per month when rolling 12-month consumption is less than 90% of total allowable. Record fuel consumption no less than once per week when rolling 12-month consumption is greater than 90% of total allowable. Report 12-month rolling totals in the operating report. Report in accordance with Condition 66 when a limit is exceeded.
AQ0067TVP03 – Condition 33	40 CFR 63.6665, Table 8, Subpart ZZZZ	NESHAP Subpart A Requirements	Comply with applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Monitoring, recordkeeping and reporting shall follow NESHAP regulations.
AQ0067TVP03 – Condition 34	40 CFR 63.6585 & 63.6590, Subpart ZZZZ	NESHAP Subpart ZZZZ Requirements	Comply with the applicable requirements in NESHAP Subpart ZZZZ.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.2	40 CFR 63.6603(a) & Table 2d, Item 1, Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	Meet the following requirements, except during periods of startup: - Change oil and filter every 1,000 hours of operation or annually, whichever comes first. - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary. - Sources have the option to utilize	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
			an oil analysis program as described in Condition 34.4 in order to extend the oil change requirement.		
AQ0067TVP03 – Condition 34.2	40 CFR 63.6625(h), Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the nonstartup emission limitations apply.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(a)	NESHAP Subpart ZZZZ General Requirements	Comply with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(b)	NESHAP Subpart ZZZZ General Requirements	At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practice for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 34.5	40 CFR 63.6625(e), Table 6, Item 9, Subpart ZZZZ	NESHAP Subpart ZZZZ Requirements for Demonstration of Continuous Compliance with Emission Limitations, Operating Limitations, and Other	Operate and maintain the engine according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide to the extent practicable for the	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
		Requirements	maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.		

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart IIII	This regulation is for diesel-fired engines constructed after July 11, 2005. These units were constructed before July 11, 2005 and therefore are not affected sources.
40 CFR 60 Subpart JJJJ	This regulation is for gas-fired engines constructed after June 12, 2006. These units are diesel-fired and were constructed before June 12, 2006 and therefore are not affected sources.
40 CFR 63 Subpart ZZZZ, CO emission limitations	This engine is less than 300 hp so it does not have a numerical CO emission limitation.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B1

Emission Unit Detail Form – External Combustion Equipment (Boilers and Heaters)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	15
2.	Date installation/construction commenced	1992
3.	Date installed	1992
4.	Emission Unit serial number	Not available (M-B-1450)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer	Weil-McLain Boiler 88
7.	Description of emission unit, including type of boiler/heater and firing method: Gas-fired glycol boiler.	
8.	Rated design capacity (heat input, MMBtu/hr)	4.763 MMBtu/hr
9.	Maximum steam production rate (lbs/hr)	N/A
10.	Maximum steam pressure (psi)	N/A
11.	Maximum steam temperature (°F)	N/A

12. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Fuel Gas	4.54 Mscf/hr

13.	Is waste heat utilized for any purpose? If yes, describe: No.

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Use only gas as fuel (Condition 1.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0094TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Use only gas as fuel (Condition 6.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0094TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	For gas fuel, analyze a representative sample of the fuel annually to determine the sulfur content using an appropriate method under Condition 10.6. Keep records of this analysis and report the fuel sample results in the operating report (Conditions 10.7 and 10.8).
AQ0067TVP03 - Condition 45	18 AAC 50.326(j), 50.346(b)(5)	Good Air Pollution Control Practice	Perform regular maintenance considering the manufacturer's or operator's maintenance procedures; keep records of any maintenance that would have a significant effect of emissions; and keep a copy of either the manufacturer's or operator's maintenance procedures.	Yes.	Annual Compliance Audit.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart Dc	The boiler is not an affected source because the maxium design capacity is less than 10 MMBtu/hr.
40 CFR 63 Subpart DDDDD	This subpart is for major sources of HAPs. The stationary source is not a major source of HAPs.
40 CFR 63 Subpart JJJJJJ	The boiler is a natural gas boiler and is not subject to the requirements per 40 CFR 63.11195(e).

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B5
Emission Unit Detail Form - Miscellaneous Emission Units

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	16
2.	Date installation/construction commenced	1966
3.	Date installed	1966
4.	Emission Unit serial number	G3633ARB (M-SY-1570)
5.	Special control requirements? [if yes, describe]	No
6.	Description of process: Triethylene Glycol (TEG) Dehydration Unit	
7.	Continuous or batch process? [if batch, maximum batches per hour]	Continuous

8. Raw material usage: [for EACH raw material used, enter]:

Material	Maximum design capacity (lbs/batch or lbs/hr)
Platform Gas	10 MMscf(raw)/day

9. Production data: [for EACH product, enter]:

Product	Maximum design capacity (lbs/batch or lbs/hr)
N/A	N/A

10. Attach any additional information necessary to describe this process and its operating and usage parameters, both short-term and annual.

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visibility, Industrial Processes and Fuel Burning Equipment	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter, Industrial Processes and Fuel Burning Equipment	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions, Industrial Processes and Fuel Burning Equipment	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 45	18 AAC 50.030, 50.326(j), 50.346(b)(5)	Good Air Pollution Control Practice	Perform regular maintenance considering the manufacturer's or operator's maintenance procedures; keep records of any maintenance that would have a significant effect of emissions; and keep a copy of either the manufacturer's or operator's maintenance procedures.	Yes.	Annual Compliance Audit.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 63 Subpart HH	Pursuant to 40 CFR 63.760(e)(1), this emission unit is exempt from requirements under Subpart HH because Monopod Platform is a stationary source that exclusively processes "black oil" as defined in 40 CFR 63.761.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B5
Emission Unit Detail Form - Miscellaneous Emission Units

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	17, 18, 19, and 20
2.	Date installation/construction commenced	1966
3.	Date installed	1966
4.	Emission Unit serial number	EU ID 17 – Not available (M-SP-0610LP) EU ID 18 – Not available (M-SP-0610HP) EU ID 19 – Not available (M-SP-0630LP) EU ID 20 – Not available (M-SP-0630HP)
5.	Special control requirements? [if yes, describe]	No
6.	Description of process: EU ID 17 – Low Pressure Flare – NW EU ID 18 – High Pressure Flare (Flare and Pilot) – NW EU ID 19 – Low Pressure Flare – South EU ID 20 – High Pressure Flare (Flare and Pilot) – South	
7.	Continuous or batch process? [if batch, maximum batches per hour]	Continuous

8. Raw material usage: [for EACH raw material used, enter]:

Material	Maximum design capacity (lbs/batch or lbs/hr)
Platform Gas	200 Mscf/hr; 400 Mscf/day; 91.5 MMscf/yr

9. Production data: [for EACH product, enter]:

Product	Maximum design capacity (lbs/batch or lbs/hr)
N/A	N/A

10. Attach any additional information necessary to describe this process and its operating and usage parameters, both short-term and annual.

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 - Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor, record and report in accordance with Condition 5.
AQ0067TVP03 - Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions to exceed 500 ppm averaged over three hours.	Yes.	For gas fuel, analyze a representative sample of the fuel semiannually to determine the sulfur content using an appropriate method under Condition 10.6. Keep records of this analysis and report the fuel sample results in the operating report and any emission exceedances (Conditions 10.7 and 10.8).
AQ0067TVP03 - Condition 45	18 AAC 50.326(j), 50.346(b)(5)	Good Air Pollution Control Practice	Perform regular maintenance considering the manufacturer's or operator's maintenance procedures; keep records of any maintenance that would have a significant effect of emissions; and keep a copy of either the manufacturer's or operator's maintenance procedures.	Yes.	Annual Compliance Audit.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	21
2.	Date installation/construction commenced[1]	1971
3.	Date installed	1971
4.	Emission Unit serial number	131733 – (M-PM-0900)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Caterpillar
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	85 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	4.34 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 20.1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.2	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.3	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.4	18 AAC 50.346(b)(4)	Insignificant Emission Units	Monitor actual emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 33	40 CFR 63.6665, Table 8, NESHAP Subpart ZZZZ	NESHAP Subpart A Requirements	Comply with applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Monitoring, recordkeeping and reporting shall follow NESHAP regulations.
AQ0067TVP03 – Condition 34	40 CFR 63.6585 & 63.6590, Subpart ZZZZ	NESHAP Subpart ZZZZ Requirements	Comply with the applicable requirements in NESHAP Subpart ZZZZ.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.2	40 CFR 63.6603(a) & Table 2d, Item 1, Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	Meet the following requirements, except during periods of startup: - Change oil and filter every 1,000 hours of operation or annually, whichever comes first. - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
			- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary. - Sources have the option to utilize an oil analysis program as described in Condition 34.4 in order to extend the oil change requirement.		
AQ0067TVP03 – Condition 34.2	40 CFR 63.6625(h), Subpart ZZZZ	NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements	During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the nonstartup emission limitations apply.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(a)	NESHAP Subpart ZZZZ General Requirements	Comply with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.	Yes.	Monitor, record, and report in accordance with Conditions 34.4, 34.6, and 34.7.
AQ0067TVP03 – Condition 34.3	40 CFR 63.6605(b)	NESHAP Subpart ZZZZ General Requirements	At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practice for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved.	Yes.	Annual Compliance Audit.
AQ0067TVP03 –	40 CFR 63.6625(e), Table 6, Item 9,	NESHAP Subpart ZZZZ Requirements	Operate and maintain the engine according to the manufacturer's	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
Condition 34.5	Subpart ZZZZ	for Demonstration of Continuous Compliance with Emission Limitations, Operating Limitations, and Other Requirements	emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.		

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart IIII	This regulation is for diesel-fired engines constructed after July 11, 2005. These units were constructed before July 11, 2005 and therefore are not affected sources.
40 CFR 63 Subpart YYYY	Monopod Platform is not a major source of HAP emissions. Subpart YYYY applies to major sources of HAP emissions. A permit shield from Subpart YYYY only applies to the currently installed units until the source becomes a major source of HAP emissions.
40 CFR 63 Subpart ZZZZ, carbon monoxide (CO) emission limitations	This engine is less than 300 hp so it does not have a numerical CO emission limitation.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	23a
2.	Date installation/construction commenced[1]	2013
3.	Date installed	2013
4.	Emission Unit serial number	MX1919590913PH (M-PM-1660-1)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Detroit Diesel Series 60
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	685 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	35 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor using Method 9 Plan and keep records as required in Conditions 2 and 3. Report results in the operating report according to Condition 4.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter Emissions Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Conduct source tests as required by Condition 7 and keep records as required by Condition 8. Report excess emissions, as necessary, and results of any source tests in the operating report according to Condition 9.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Monitoring of diesel fuel shall consist of keeping receipts of fuel shipments if the fuel grade requires a sulfur content less than 0.3 percent by weight. If the fuel grade does not require a sulfur content less than 0.3 percent by weight, keep receipts and test fuel according to Condition 10.2. If load of fuel has sulfur content greater than 0.75 percent by weight, calculate SO_2 emissions per Condition 10.4. Report in the operating report and report excess emissions or permit deviations as needed per Condition 10.5.
AQ0067TVP03 – Condition 28	40 CFR 60.12, Subpart A	NSPS Subpart A	Concealment of Emissions	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 31	40 CFR 60.4200(a)(2), Subpart IIII	NSPS Subpart IIII Emission Standards	Comply with the following emissions standards for each engine: NMHC + NO_X: 4.0 g/kW-hr, CO: 3.5 g/kW-hr, PM: 0.20 g/kW-hr.	Yes.	Purchase an engine certified to the emissions standards. This engine is certified as a Tier 2 emergency engine.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 31.6	40 CFR 60.4209(a), Subpart IIII	NSPS Subpart IIII Monitoring Requirements	Install a non-resettable hour meter prior to startup of the engine.	Yes.	Record and report in accordance with Condition 31.10.
AQ0067TVP03 – Condition 31.7	40 CFR 60.4211(a)(1)-(3), (c), & (g), Subpart IIII	NSPS Subpart IIII Compliance Requirements	Comply with the the applicable operation and maintenance requirements of NSPS Subpart IIII.	Yes.	Install, configure, operate, and maintain the engines according to the manufactuere's emissions-related written instructions.
AQ0067TVP03 – Condition 31.8	40 CFR 60.4211(f), Subpart IIII	NSPS Subpart IIII Compliance Requirements	Operate the emergency stationary engine according to the requirements in Conditions 31.8.a(i) through 31.8.a(iii).	Yes.	Record and report in accordance with Condition 31.10.
AQ0067TVP03 – Condition 34	40 CFR 63.6585, 63.6590, 63.6590(a), Subpart ZZZZ	NESHAP Subpart ZZZZ	Comply with all applicable requirements of NSPS Subpart IIII.	Yes.	Meet the requirements of 40 CFR 63 by meeting the requirements of NSPS Subpart IIII in Condition 31.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart JJJJ	This regulation is for gas-fired engines constructed after June 12, 2006. This unit is diesel-fired and therefore are not an affected source.
40 CFR 63 Subpart IIII, §60.4207	The fuel requirements of 40 CFR 60.4207 do not apply to pre-2014 model year stationary CI ICE located in remote areas of Alaska. EU ID 23a is a pre-2014 model year CI ICE located in a remote area of Alaska.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM B2

Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)

Permit Number: AQ0067TVP03

1.	Emission Unit ID Number // Operating Scenario	26
2.	Date installation/construction commenced[1]	2014
3.	Date installed	N/A – Unit has not been installed.
4.	Emission Unit serial number	N/A
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Centaur 40
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	4,400 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	N/A

1. See page 2 of the Form B instructions regarding installation/construction date and consult regulations under 40 C.F.R. 60 (NSPS) and 40 C.F.R. 63 (NESHAP) for applicability dates, e.g.,
- NSPS Subparts IIII and JJJJ, and NESHAP Subpart ZZZZ for engines, and
- NSPS Subparts GG and KKKK, and NESHAP Subpart YYYY for turbines.
Note that other regulations may apply in addition to the regulations cited.

11. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Fuel Gas	38.29 Mscf/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit:

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 1	18 AAC 50.055(a)(1)	Visibility, Industrial Processes and Fuel Burning Equipment	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Use only gas as fuel (Condition 1.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter, Industrial Processes and Fuel Burning Equipment	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas averaged over three hours.	Yes.	Use only gas as fuel (Condition 6.2). Monitoring shall consist of a certification in each operating report that only gas was burned.
AQ0067TVP03 – Condition 10	18 AAC 50.055(c)	Sulfur Compound Emissions, Industrial Processes and Fuel Burning Equipment	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	For gas fuel, analyze a representative sample of the fuel semiannually to determine the sulfur content using an appropriate method under Condition 10.6. Keep records of this analysis and report the fuel sample results in the operating report (Conditions 10.7 and 10.8).
AQ0067TVP03 – Condition 11	Minor Permit AQ0067MSS01 Condition 1.1	Installation Notification	Submit to the Department's Fairbanks Office the installation date, serial number, specification sheet, and maximum design rating of the turbine within 30 days after installation.	Yes.	Notify the Department as required within 30 days after installation.
AQ0067TVP03 – Condition 13	Minor Permit AQ0067MSS01 Condition 4	ORL to Avoid a PSD Permit under 18 AAC 50.306(a), NO_X	Limit the NO_X emissions to no more than 39 tons per rolling 12 consecutive month period.	Yes.	Install and operate per Condition 13.1, and monitor, record, and report per Conditions 13.2 through 13.5.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 14	Minor Permit AQ0067MSS01 Condition 5	ORL to Avoid a PSD Permit under 18 AAC 50.306(a), VOC	Limit the VOC emissions to no more than 39 tpy.	Yes.	Install and operate per Condition 14.1, and monitor, record, and report per Conditions 14.2 through 14.4.
AQ0067TVP03 – Condition 15	Minor Permit AQ0067MSS01 Condition 6	ORL to Avoid a PSD Permit under 18 AAC 50.306(a), CO	Limit the CO emissions to no more than 99 tpy.	Yes.	Install and operate per Condition 15.1, and monitor, record, and report per Conditions 15.2 through 15.4.
AQ0067TVP03 – Condition 16	Minor Permit AQ0067MSS01 Condition 7	Department Imposed Limit to Avoid a PSD Permit under 18 AAC 50.306(a) and Minor Permitting under 18 AAC 50.502(c)(3), SO_2	Limit the SO_2 emissions to no more than 7.9 tpy. Limit the H_2S concentration of fuel gas burned to no more than 650 ppmv.	Yes.	Monitor, record, and report in accordance with Conditions 16.2 and 16.3.
AQ0067TVP03 – Condition 17	Minor Permit AQ0067MSS01 Condition 8	Department Imposed Limit to Avoid Minor Permitting under 18 AAC 50.502(c)(3), NO_X and SO_2	Limit the increase in NO_X and SO_2 emissions to no more than 10 tpy each.	Yes.	Remove EU ID 24 from service prior to EU DI 26 becoming fully operational. Report the removal, installation, and fully operational dates in the first operating report.
AQ0067TVP03 – Condition 22	40 CFR 60.7(b), Subpart A	NSPS Subpart A	Startup, Shutdown, & Malfunction Requirements.	Yes.	Maintain records of the occurrence of any start-up, shutdown, or malfunction in the operation, any malfunctions of associated air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperative.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 23	40 CFR 60.7(c)	NSPS Subpart A	Excess Emission and Monitoring Systems Performance (EEMSP) Report.	Yes.	Submit to the Department and to EPA an EEMSP report. Submit the report(s) semiannually.
AQ0067TVP03 – Condition 24	40 CFR 60.7(c) & (d)	NSPS Subpart A	Summary Report Form.	Yes.	Submit one semiannual "summary report form" in the format shown in Figure 1 of 40 CFR 60.7.
AQ0067TVP03 – Condition 25	40 CFR 60.8(a), Subpart A	NSPS Subpart A	Performance (Source) Tests.	Yes.	Initial Source Test.
AQ0067TVP03 – Condition 26	40 CFR 60.11(d), Subpart A	NSPS Subpart A	Good Air Pollution Control Practice.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 27	40 CFR 60.11(g), Subpart A	NSPS Subpart A	Credible Evidence.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 28	40 CFR 60.12, Subpart A	NSPS Subpart A	Concealment of Emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 32	40 CFR 60.4300 & 60.4305(a)	NSPS Subpart KKKK Requirements	Comply with all applicable requirements of NSPS Subpart KKKK.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 32.1	40 CFR 60.4320(a), Subpart KKKK	NSPS Subpart KKKK General Compliance Requirements	Operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0067TVP03 – Condition 32.2	40 CFR 60.4320(a), Subpart KKKK	NSPS Subpart KKKK NO_X Standard	Do not allow the exhaust gas concentration of NO_X to exceed 42 ppm at 15 percent O_2 dry exhaust basis; and 150 ppm at 15 percent O_2 dry exhaust basis when operating at less than 75 percent of peak load or at temperatures less than 0°F.	Yes.	Monitor, record, and report in accordance with Conditions 32.2b and 32.2c.
AQ0067TVP03 – Condition 32.3	40 CFR 60.4320(a), Subpart KKKK	NSPS Subpart KKKK SO_2 Standard	Do not burn any fuel which contains total sulfur with potential sulfur emissions in excess of 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input.		Monitor, record, and report in accordance with Conditions 32.3a through 32.3d.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart KKKK, §60.4335	EU ID 26 does not have water or steam injection.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Section C

Pollution Control Devices

Not Applicable

Section D

Emissions Summary

Forms D1:	Potential Annual Emissions (After Controls/Limitations)
Forms D2:	Potential Annual Emissions (Before Controls/Limitations)
Forms D3:	Expected Actual Annual Emissions (After Controls/Limitations)

Table D-1a. Emissions Summary - Limited Potential Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Emissions (tpy)						
		NO_X	CO	PM_{10}	SO_2	VOC	CO_2e	HAP [1]
Significant Units								
1	Gas Compressor Set #1	55.26	14.16	1.14	5.55	0.36	20,220	0.18
2	Gas Compressor Set #2	55.26	14.16	1.14	5.55	0.36	20,220	0.18
3	AC Generator #1 Drive	16.95	4.34	0.35	1.70	0.11	6,202	0.05
4	Gas Lift Compressor	17.17	4.40	0.35	1.73	0.11	6,284	0.06
5	AC Generator #2 Drive	16.95	4.34	0.35	1.70	0.11	6,202	0.05
6	Waterflood Pump #1 Drive	17.17	4.40	0.35	1.73	0.11	6,284	0.06
7	Waterflood Pump #2 Drive	17.17	4.40	0.35	1.73	0.11	6,284	0.06
8a	Drill Generator #1	56.32	11.60	2.32	18.02	8.20	5,770	0.06
9a	Drill Generator #2							
10a	Drill Generator #3							
13	East Crane	13.33	3.72	0.70	1.40	0.41	750	0.02
14	West Crane	7.12	8.75	0.22	0.51	0.20	273	0.006
15	Boiler	2.05	1.72	0.16	0.67	0.11	2,443	0.04
16	TEG Dehydration Unit	0	0	0	0	38.95	1,741	5.12
17	Low Pressure Flare – NW	3.27	14.89	1.27	1.55	31.70	5,625	0.14
18	High Pressure Flare and Pilot – NW							
19	Low Pressure Flare – South							
20	High Pressure Flare and Pilot – South							
21	Fire Water Pump Drive	11.54	2.49	0.82	1.33	0.92	426	0.01
23a	Emergency Generator Drive #7	1.03	0.30	0.05	0.61	0.03	196	0.002
26	Generator Drive (in SoLoNOX, > 0°F)	39.00	99.00	1.16	18.41	39.00	20,622	0.18
	Significant Unit Total	**329.6**	**192.7**	**10.7**	**62.2**	**120.8**	**109,542**	**6.2**
Insignificant Units								
22	Boiler #2	1.63	1.37	0.12	0.54	0.09	1,949	0.03
N/A	Diesel Beam Tank 1	0.00	0.00	0.00	0.00	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 2	0.00	0.00	0.00	0.00	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 3	0.00	0.00	0.00	0.00	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 4	0.00	0.00	0.00	0.00	1.0E-03	0	1.1E-04
N/A	Crude Oil Shipping Tank	0.00	0.00	0.00	0.00	0.09	0	6.0E-03
N/A	Crude Oil Well Clean Tank	0.00	0.00	0.00	0.00	0.09	0	6.0E-03
N/A	Diesel Day Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Diesel Day Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Diesel/Demulsifier Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Used Oil Tank	0.00	0.00	0.00	0.00	2.6E-04	0	1.7E-05
N/A	Hydraulic Oil Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
N/A	Paraffin Dispersant Tank	0.00	0.00	0.00	0.00	5.2E-05	0	5.6E-06
	Insignificant Unit Total	**1.63**	**1.37**	**0.12**	**0.54**	**0.28**	**1,949**	**0.04**
	Total (Significant and Insignificant)	**331.2**	**194.0**	**10.9**	**62.7**	**121.1**	**111,491**	**6.2**
	Major/Minor	Major	Major	Minor	Minor	Major	NA	NA
	Total Assessable Emissions	**720**						

Notes:
[1] The highest individual HAP is Benzene with HAP emissions of 1.6 tpy.

Table D-1b. Emissions Summary - Unlimited Potential Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Emissions (tpy)						
		NO_X	CO	PM_{10}	SO_2	VOC	CO_2e	HAP
Significant Units								
1	Gas Compressor Set #1	55.26	14.16	1.14	5.55	0.36	20,220	0.18
2	Gas Compressor Set #2	55.26	14.16	1.14	5.55	0.36	20,220	0.18
3	AC Generator #1 Drive	16.95	4.34	0.35	1.70	0.11	6,202	0.05
4	Gas Lift Compressor	17.17	4.40	0.35	1.73	0.11	6,284	0.06
5	AC Generator #2 Drive	16.95	4.34	0.35	1.70	0.11	6,202	0.05
6	Waterflood Pump #1 Drive	17.17	4.40	0.35	1.73	0.11	6,284	0.06
7	Waterflood Pump #2 Drive	17.17	4.40	0.35	1.73	0.11	6,284	0.06
8a	Drill Generator #1	72.56	14.94	2.99	23.21	10.56	7,433	0.07
9a	Drill Generator #2	72.56	14.94	2.99	23.21	10.56	7,433	0.07
10a	Drill Generator #3	72.56	14.94	2.99	23.21	10.56	7,433	0.07
13	East Crane	37.47	10.46	1.98	3.95	1.15	2,107	0.05
14	West Crane	30.03	36.94	0.93	2.16	0.85	1,154	0.03
15	Boiler	2.05	1.72	0.16	0.67	0.11	2,443	0.04
16	TEG Dehydration Unit	0	0	0	0	38.95	1,741	5.12
17	Low Pressure Flare – NW	3.27	14.89	1.27	1.55	31.70	5,625	0.14
18	High Pressure Flare and Pilot – NW							
19	Low Pressure Flare – South							
20	High Pressure Flare and Pilot – South							
21	Fire Water Pump Drive	11.54	2.49	0.82	1.33	0.92	426	0.01
23a	Emergency Generator Drive #7	17.99	5.29	0.86	10.73	0.53	3,436	0.03
26	Generator Drive (in SoLoNOX, > 0°F)	88.04	3,617.88	1.16	18.41	41.17	20,622	0.18
	Significant Unit Total	**604.0**	**3,784.7**	**20.2**	**128.1**	**148.4**	**131,549**	**6.44**
Insignificant Units								
22	Boiler #2	1.63	1.37	0.12	0.54	0.09	1,949	0.03
N/A	Diesel Beam Tank 1	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 2	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 3	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 4	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Crude Oil Shipping Tank	0	0	0	0	0.09	0	6.0E-03
N/A	Crude Oil Well Clean Tank	0	0	0	0	0.09	0	6.0E-03
N/A	Diesel Day Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Day Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel/Demulsifier Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Used Oil Tank	0	0	0	0	2.6E-04	0	1.7E-05
N/A	Hydraulic Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Paraffin Dispersant Tank	0	0	0	0	5.2E-05	0	5.6E-06
	Insignificant Unit Total	**1.6**	**1.4**	**0.1**	**0.5**	**0.3**	**1,949**	**0.0**
	Total (Significant and Insignificant)	**605.6**	**3,786.1**	**20.3**	**128.7**	**148.6**	**133,498**	**6.5**

Table D-1c. Emissions Summary - Estimated Actual Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Emissions (tpy)						
		NO_X	CO	PM_{10}	SO_2	VOC	CO_2e	HAP
Significant Units								
1	Gas Compressor Set #1	0	0	0	0	0	0	0
2	Gas Compressor Set #2	53.82	13.79	1.11	5.41	0.35	19694	0.17
3	AC Generator #1 Drive	16.90	4.33	0.35	1.70	0.11	6183	0.05
4	Gas Lift Compressor	16.73	4.29	0.34	1.68	0.11	6120	0.05
5	AC Generator #2 Drive	16.90	4.33	0.35	1.70	0.11	6185	0.05
6	Waterflood Pump #1 Drive	0	0	0	0	0	0	0
7	Waterflood Pump #2 Drive	0	0	0	0	0	0	0
8a	Drill Generator #1	6.87	1.41	0.28	2.20	1.00	704	6.8E-03
9a	Drill Generator #2	5.16	1.06	0.21	1.65	0.75	529	5.1E-03
10a	Drill Generator #3	11.62	2.39	0.48	3.72	1.69	1191	0.01
13	East Crane	3.16	0.88	1.7E-01	0.33	9.7E-02	178	4.2E-03
14	West Crane	0.68	0.83	0.02	0.05	1.9E-02	26	6.1E-04
15	Boiler	1.46	1.23	0.11	0.48	0.08	1749	0.03
16	TEG Dehydration Unit	0	0	0	0	25.09	1184	4.19
17	Low Pressure Flare – NW	2.06	9.40	0.80	0.98	20.01	3,550	0.09
18	High Pressure Flare and Pilot – NW							
19	Low Pressure Flare – South							
20	High Pressure Flare and Pilot – South							
21	Fire Water Pump Drive	2.6E-03	5.7E-04	1.9E-04	3.0E-04	2.1E-04	0.1	2.3E-06
23a	Emergency Generator Drive #7	0.03	8.0E-03	1.3E-03	0.02	8.0E-04	5.2	5.0E-05
26	Generator Drive (in SoLoNOX, > 0°F)	0	0	0	0	0	0.0	0
	Significant Unit Total	**135.4**	**44.0**	**4.2**	**19.9**	**49.4**	**47,297**	**4.7**
Insignificant Units								
22	Boiler #2	0.55	0.46	0.04	0.18	0.03	651	0.01
N/A	Diesel Beam Tank 1	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 2	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 3	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Diesel Beam Tank 4	0	0	0	0	1.0E-03	0	1.1E-04
N/A	Crude Oil Shipping Tank	0	0	0	0	9.2E-02	0	6.0E-03
N/A	Crude Oil Well Clean Tank	0	0	0	0	9.2E-02	0	6.0E-03
N/A	Diesel Day Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Day Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel Crane Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Diesel/Demulsifier Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Lube Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Used Oil Tank	0	0	0	0	2.6E-04	0	1.7E-05
N/A	Hydraulic Oil Tank	0	0	0	0	5.2E-05	0	5.6E-06
N/A	Paraffin Dispersant Tank	0	0	0	0	5.2E-05	0	5.6E-06
	Insignificant Unit Total	**0.5**	**0.5**	**0.0**	**0.2**	**0.2**	**651**	**2.3E-02**
	Total (Significant and Insignificant)	**135.9**	**44.4**	**4.3**	**20.1**	**49.6**	**47,948**	**4.7**

Table D-2. Emission Unit Inventory
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Make/Model	Fuel Type	Rating/Size	Limited Potential Operation	Unlimited Potential Operation	Expected Actual Operation [1]
Significant Units							
1	Gas Compressor Set #1	Solar Centaur T-4500 Turbine	FG	4,400 hp	8,760 hr/yr	8,760 hr/yr	0 hr/yr
2	Gas Compressor Set #2	Solar Centaur T-4500 Turbine	FG	4,400 hp	8,760 hr/yr	8,760 hr/yr	8,532.0 hr/yr
3	AC Generator #1 Drive	Solar Saturn Turbine	FG	750 kW	8,760 hr/yr	8,760 hr/yr	8,734.0 hr/yr
4	Gas Lift Compressor	Solar Saturn Turbine	FG	1,100 hp	8,760 hr/yr	8,760 hr/yr	8,532.0 hr/yr
5	AC Generator #2 Drive	Solar Saturn Turbine	FG	750 kW	8,760 hr/yr	8,760 hr/yr	8,736.0 hr/yr
6	Waterflood Pump #1 Drive	Solar Saturn Turbine	FG	1,100 hp	8,760 hr/yr	8,760 hr/yr	0 hr/yr
7	Waterflood Pump #2 Drive	Solar Saturn Turbine	FG	1,100 hp	8,760 hr/yr	8,760 hr/yr	0 hr/yr
8a	Drill Generator #1	MTU 12V4000G73 Engine	Diesel	1,105 kW	6,800 hr/yr [2]	8,760 hr/yr	829.5 hr/yr
9a	Drill Generator #2	MTU 12V4000G73 Engine	Diesel	1,105 kW		8,760 hr/yr	623.0 hr/yr
10a	Drill Generator #3	MTU 12V4000G73 Engine	Diesel	1,105 kW		8,760 hr/yr	1,403.0 hr/yr
13	East Crane	Caterpillar 3406B-DITA Engine	Diesel	420 hp	66,900 gal/yr [3]	8,760 hr/yr	15,880.3 gal/yr
14	West Crane	Detroit Diesel 671 Engine	Diesel	230 hp	24,400 gal/yr [4]	8,760 hr/yr	2,315.1 gal/yr
15	Boiler	Weil-McLain Boiler 88	FG	4.763 MMBtu/hr	8,760 hr/yr	8,760 hr/yr	6,270.0 hr/yr
16	TEG Dehydration Unit	Glycol Regenerator	N/A	10 MMscf/day	8,760 hr/yr	8,760 hr/yr	7,390.0 hr/yr
17	Low Pressure Flare – NW	Flare (LP)	FG	91.5 MMscf/yr	91.5 MMscf/yr	91.5 MMscf/yr	57.7 MMscf/yr
18	High Pressure Flare and Pilot – NW	Flare and Pilot (HP)	FG				
19	Low Pressure Flare – South	Flare (LP)	FG				
20	High Pressure Flare and Pilot – South	Flare and Pilot (HP)	FG				
21	Fire Water Pump Drive	Caterpillar Diesel Engine	Diesel	85 hp	8,760 hr/yr	8,760 hr/yr	2.0 hr/yr
23a	Emergency Generator Drive #7	Detroit Diesel Series 60 Engine	Diesel	685 hp	500 hr/yr	8,760 hr/yr	13.3 hr/yr
26	Generator Drive (in SoLoNO$_X$, > 0°F)	Solar Centaur 40 Turbine	FG	4,400 hp	8,760 hr/yr	8,760 hr/yr	0 hr/yr
	Generator Drive (in SoLoNO$_X$, ≤ 0°F)						0 hr/yr
	Generator Drive (out SoLoNO$_X$)						0 hr/yr
Insignificant Units							
22	Boiler #2	Peerless Boiler	FG	3.8 MMBtu/hr	8,760 hr/yr	8,760 hr/yr	2,927 hr/yr
N/A	Diesel Beam Tank 1	Diesel Beam Tank	Diesel	25,137 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Beam Tank 2	Diesel Beam Tank	Diesel	25,137 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Beam Tank 3	Diesel Beam Tank	Diesel	25,137 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Beam Tank 4	Diesel Beam Tank	Diesel	25,137 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Crude Oil Shipping Tank	Crude Oil Shipping Tank	Crude	7,424 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Crude Oil Well Clean Tank	Crude Oil Well Clean Tank	Crude	7,138 gal	8,761 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Day Tank	Diesel Day Tank	Diesel	513 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Day Tank	Diesel Day Tank	Diesel	56 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Crane Tank	Diesel Crane Tank	Diesel	75 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel Crane Tank	Diesel Crane Tank	Diesel	75 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Diesel/Demulsifier Tank	Diesel/Demulsifier Tank	Diesel	550 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	500 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	500 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	500 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	500 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	300 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Lube Oil Tank	Lube Oil Tank	Lube Oil	80 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Used Oil Tank	Used Oil Tank	Used Oil	2,472 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Hydraulic Oil Tank	Hydraulic Oil Tank	Hydraulic Oil	500 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr
N/A	Paraffin Dispersant Tank	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	8,760 hr/yr	8,760 hr/yr	8,760 hr/yr

Notes:

[1] Expected actual operations are based 2022 operations. 8,760 hours per year was assumed for expected actuals of insignificant units.

[2] The operational limit is from Condition 5.1 of Minor Permit No. AQ0067MSS02.

[3] The operational limit is based on the fuel use limit of 66,900 gallons per year from Condition 3.1 of Construction Permit No. AQ0067CPT01.

[4] The operational limit is based on the fuel use limit of 24,400 gallons per year from Condition 3.2 of Construction Permit No. AQ0067CPT01.

Table D-3. NO_X Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	0.32 lb/MMBtu	AP-42 Table 3.1-1	55.26 tpy	55.26 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	0.32 lb/MMBtu	AP-42 Table 3.1-1	55.26 tpy	55.26 tpy	53.82 tpy
3	AC Generator #1 Drive	FG	750 kW	0.32 lb/MMBtu	AP-42 Table 3.1-1	16.95 tpy	16.95 tpy	16.90 tpy
4	Gas Lift Compressor	FG	1,100 hp	0.32 lb/MMBtu	AP-42 Table 3.1-1	17.17 tpy	17.17 tpy	16.73 tpy
5	AC Generator #2 Drive	FG	750 kW	0.32 lb/MMBtu	AP-42 Table 3.1-1	16.95 tpy	16.95 tpy	16.90 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	0.32 lb/MMBtu	AP-42 Table 3.1-1	17.17 tpy	17.17 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	0.32 lb/MMBtu	AP-42 Table 3.1-1	17.17 tpy	17.17 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	6.8 g/kWh	Vendor	56.32 tpy	72.56 tpy	6.87 tpy
9a	Drill Generator #2	Diesel	1,105 kW	6.8 g/kWh	Vendor		72.56 tpy	5.16 tpy
10a	Drill Generator #3	Diesel	1,105 kW	6.8 g/kWh	Vendor		72.56 tpy	11.62 tpy
13	East Crane	Diesel	420 hp	3,880 g/hr	Manufacturer's Data	13.33 tpy	37.47 tpy	3.16 tpy
14	West Crane	Diesel	230 hp	3,110 g/hr	Manufacturer's Data	7.12 tpy	30.03 tpy	0.68 tpy
15	Boiler	FG	4.763 MMBtu/hr	103 lb/MMscf	AP-42 Table 1.4-1 [2]	2.05 tpy	2.05 tpy	1.46 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	0.068 lb/MMBtu	AP-42 Table 13.5-1	3.27 tpy	3.27 tpy	2.06 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	0.031 lb/hp-hr	AP-42 Table 3.3-1	11.54 tpy	11.54 tpy	2.6E-03 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	2.72 g/bhp-hr	Vendor	1.03 tpy	17.99 tpy	0.03 tpy
26	Generator Drive (in SoLoNO$_X$, > 0°F)	FG	4,400 hp	6.4 lb/hr	AQ0067MSS01, Table 2	39 tpy [3]	88.04 tpy	0 tpy
	Generator Drive (in SoLoNO$_X$, ≤ 0°F)			20.1 lb/hr	AQ0067MSS01, Table 2			0 tpy
	Generator Drive (out SoLoNO$_X$,)			11.7 lb/hr	AQ0067MSS01, Table 2			0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	103 lb/MMscf	AP-42 Table 1.4-1 [2]	1.63 tpy	1.63 tpy	0.55 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	513 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	56 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
					Total Emissions	**331.21 tpy**	**605.61 tpy**	**135.93 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr, LHV basis
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr, LHV basis
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr, LHV basis	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

[2] Emission factor corrected for a higher heating value.

[3] Emissions from EU ID 26 are limited to 39 tpy per Condition 4 of Minor Permit No. AQ0067MSS01.

Table D-4. CO Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	0.082 lb/MMBtu	AP-42 Table 3.1-1	14.16 tpy	14.16 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	0.082 lb/MMBtu	AP-42 Table 3.1-1	14.16 tpy	14.16 tpy	13.79 tpy
3	AC Generator #1 Drive	FG	750 kW	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.34 tpy	4.34 tpy	4.33 tpy
4	Gas Lift Compressor	FG	1,100 hp	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.40 tpy	4.40 tpy	4.29 tpy
5	AC Generator #2 Drive	FG	750 kW	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.34 tpy	4.34 tpy	4.33 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.40 tpy	4.40 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.40 tpy	4.40 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	1.4 g/kWh	Vendor	11.60 tpy	14.94 tpy	1.41 tpy
9a	Drill Generator #2	Diesel	1,105 kW	1.4 g/kWh	Vendor		14.94 tpy	1.06 tpy
10a	Drill Generator #3	Diesel	1,105 kW	1.4 g/kWh	Vendor		14.94 tpy	2.39 tpy
13	East Crane	Diesel	420 hp	1,083 g/hr	Manufacturer's Data	3.72 tpy	10.46 tpy	0.88 tpy
14	West Crane	Diesel	230 hp	3,825 g/hr	Manufacturer's Data	8.75 tpy	36.94 tpy	0.83 tpy
15	Boiler	FG	4.763 MMBtu/hr	86 lb/MMscf	AP-42 Table 1.4-1 [2]	1.72 tpy	1.72 tpy	1.23 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	0.31 lb/MMBtu	AP-42 Table 13.5-2	14.89 tpy	14.89 tpy	9.40 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	0.00668 lb/hp-hr	AP-42 Table 3.3-1	2.49 tpy	2.49 tpy	5.7E-04 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	0.80 g/bhp-hr	Vendor	0.30 tpy	5.29 tpy	8.0E-03 tpy
26	Generator Drive (in SoLoNO$_X$, > 0°F)	FG	4,400 hp	5 lb/hr	Vendor	99 tpy [3]	3,617.88 tpy	0 tpy
	Generator Drive (in SoLoNO$_X$, ≤ 0°F)			16 lb/hr	Vendor			0 tpy
	Generator Drive (out SoLoNO$_X$)			826 lb/hr	Vendor			0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	86 lb/MMscf	AP-42 Table 1.4-1 [2]	1.37 tpy	1.37 tpy	0.46 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	513 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	56 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
					Total Emissions	**194.05 tpy**	**3,786.05 tpy**	**44.42 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

[2] Emission factor corrected for a higher heating value.

[3] Emissions from EU ID 26 are limited to 99 tpy per Condition 6 of Minor Permit No. AQ0067MSS01.

Table D-5. PM (PM_{10} and $PM_{2.5}$) Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	1.14 tpy	1.14 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	1.14 tpy	1.14 tpy	1.11 tpy
3	AC Generator #1 Drive	FG	750 kW	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.35 tpy	0.35 tpy	0.35 tpy
4	Gas Lift Compressor	FG	1,100 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.35 tpy	0.35 tpy	0.34 tpy
5	AC Generator #2 Drive	FG	750 kW	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.35 tpy	0.35 tpy	0.35 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.35 tpy	0.35 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.35 tpy	0.35 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	0.28 g/kWh	Vendor	2.32 tpy	2.99 tpy	0.28 tpy
9a	Drill Generator #2	Diesel	1,105 kW	0.28 g/kWh	Vendor		2.99 tpy	0.21 tpy
10a	Drill Generator #3	Diesel	1,105 kW	0.28 g/kWh	Vendor		2.99 tpy	0.48 tpy
13	East Crane	Diesel	420 hp	205 g/hr	Manufacturer's Data	0.70 tpy	1.98 tpy	1.7E-01 tpy
14	West Crane	Diesel	230 hp	96 g/hr	Manufacturer's Data	0.22 tpy	0.93 tpy	0.02 tpy
15	Boiler	FG	4.763 MMBtu/hr	7.8 lb/MMscf	AP-42 Table 1.4-2 [2]	0.16 tpy	0.16 tpy	0.11 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	0.0264 lb/MMBtu	AP-42 Table 13.5-1	1.27 tpy	1.27 tpy	0.80 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	0.0022 lb/hp-hr	AP-42 Table 3.3-1	0.82 tpy	0.82 tpy	1.9E-04 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	0.13 g/bhp-hr	Vendor	0.05 tpy	0.86 tpy	1.3E-03 tpy
26	Generator Drive	FG	4,400 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	1.16 tpy	1.16 tpy	0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	7.8 lb/MMscf	AP-42 Table 1.4-2 [2]	0.12 tpy	0.12 tpy	0.04 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	513 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	56 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
					Total Emissions	**10.86 tpy**	**20.30 tpy**	**4.27 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

[2] Emission factor corrected for a higher heating value.

Table D-6. VOC Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.36 tpy	0.36 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.36 tpy	0.36 tpy	0.35 tpy
3	AC Generator #1 Drive	FG	750 kW	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.11 tpy	0.11 tpy	0.11 tpy
4	Gas Lift Compressor	FG	1,100 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.11 tpy	0.11 tpy	0.11 tpy
5	AC Generator #2 Drive	FG	750 kW	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.11 tpy	0.11 tpy	0.11 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.11 tpy	0.11 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.11 tpy	0.11 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	0.99 g/kWh	Vendor		10.56 tpy	1.00 tpy
9a	Drill Generator #2	Diesel	1,105 kW	0.99 g/kWh	Vendor	8.20 tpy	10.56 tpy	0.75 tpy
10a	Drill Generator #3	Diesel	1,105 kW	0.99 g/kWh	Vendor		10.56 tpy	1.69 tpy
13	East Crane	Diesel	420 hp	119 g/hr	Manufacturer's Data	0.41 tpy	1.15 tpy	9.7E-02 tpy
14	West Crane	Diesel	230 hp	88 g/hr	Manufacturer's Data	0.20 tpy	0.85 tpy	1.9E-02 tpy
15	Boiler	FG	5 MMBtu/hr	5.7 lb/MMscf	AP-42 Table 1.4-2 [2]	0.11 tpy	0.11 tpy	0.08 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	Gly-Calc Model	38.95 tpy	38.95 tpy	25.09 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	0.66 lb/MMBtu	AP-42 Table 13.5-2	31.70 tpy	31.70 tpy	20.01 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	0.00247 lb/hp-hr	AP-42 Table 3.3-1	0.92 tpy	0.92 tpy	2.1E-04 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	0.08 g/bhp-hr	Vendor	0.03 tpy	0.53 tpy	8.0E-04 tpy
26	Generator Drive (in SoLoNO$_X$, > 0°F)	FG	4,400 hp	0.3 lb/hr	Vendor	39 tpy [3]	41.17 tpy	0 tpy
	Generator Drive (in SoLoNO$_X$, ≤ 0°F)			0.6 lb/hr	Vendor			0 tpy
	Generator Drive (out SoLoNO$_X$,)			9.4 lb/hr	Vendor			0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	5.7 lb/MMscf	AP-42 Table 1.4-2 [2]	0.09 tpy	0.09 tpy	0.03 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	2.1 lb/yr [4]	AP-42 Chapter 7	1.0E-03 tpy	1.0E-03 tpy	1.0E-03 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	2.1 lb/yr [4]	AP-42 Chapter 7	1.0E-03 tpy	1.0E-03 tpy	1.0E-03 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	2.1 lb/yr [4]	AP-42 Chapter 7	1.0E-03 tpy	1.0E-03 tpy	1.0E-03 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	2.1 lb/yr [4]	AP-42 Chapter 7	1.0E-03 tpy	1.0E-03 tpy	1.0E-03 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	184.8 lb/yr [4]	AP-42 Chapter 7	0.09 tpy	0.09 tpy	0.09 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	184.8 lb/yr [4]	AP-42 Chapter 7	0.09 tpy	0.09 tpy	0.09 tpy
N/A	Diesel Day Tank	Diesel	513 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Diesel Day Tank	Diesel	56 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	0.5 lb/yr [4]	AP-42 Chapter 7	2.6E-04 tpy	2.6E-04 tpy	2.6E-04 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	0.1 lb/yr [4]	AP-42 Chapter 7	5.2E-05 tpy	5.2E-05 tpy	5.2E-05 tpy
					Total Emissions	**121.09 tpy**	**148.64 tpy**	**49.64 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

[2] Emission factor corrected for a higher heating value.

[3] Emissions from EU ID 26 are limited to 39 tpy per Condition 5 of Minor Permit No. AQ0067MSS01.

[4] See Table 7. Tank VOC and HAPs Emission Calculations. Lube oil, hydraulic oil, and paraffin dispersant tanks use the emission factor for the largest diesel day tank as a conservative estimate.

Table D-7. Tank VOC and HAP Emission Calculations
Hilcorp Alaska, LLC - Monopod Platform

Emission Calculations [1]					
Parameter	**Diesel Beam Tank**	**Diesel Day Tank**	**Used Oil Tank**	**Crude Storage Tank**	**Equation**
Standing Loss (Ls) Calculations					
Ke	0.042	0.042	0.042	0.042	Eq. 1-12
Effective Height (He)	9.4	2.9	NA	NA	Eq. 1-15
Hvo (ft)	4.71	1.44	5.45	7.19	Eq. 1-16
Taa (^{o}R)	494.87	494.87	494.87	494.87	Eq. 1-30
Tb (^{o}R)	496.65	496.65	496.65	496.65	Eq. 1-31
Tla (^{o}R)	498.92	498.92	498.92	498.92	Eq. 1-28
Pva (psia)	0.0032	0.0032	0.0032	1.3558	Eq. 1-25
Ks	0.9992	0.9998	0.9991	0.6595	Eq. 1-21
Tv (^{o}R)	500.76	500.76	500.76	500.76	Eq. 1-33
Wv (lb/ft^3)	7.69E-05	7.69E-05	7.69E-05	1.26E-02	Eq. 1-22
Effective Diameter (De)	21.4	5.5	NA	NA	Eq. 1-14
Vv (ft^3)	1,696.46	34.32	180.69	564.31	Eq. 1-3
Ls (lb/yr)	2.00	0.04	0.21	72.12	Eq. 1-2
Working Loss (Lw) Calculations					
ΣHqi (ft/yr)	2.33	34.53	119.49	151.62	Eq. 1-37
Maximum Liquid Height (Hlx)	9.42	2.88	9.00	12.00	Eq. 1-36
Minimum Liquid Height (Hln)	0	0	1	1	Eq. 1-36
N	0	12	15	14	Eq. 1-36
K_N, K_B	1	1	1	1	Eq. 1-35
K_P	1	1	1	0.75	Eq. 1-35
Vq (ft^3/yr)	840	823	3,965	11,908	Eq. 1-39
Lw (lb/yr)	0.06	0.06	0.30	112.67	Eq. 1-35
Total VOCs (lb):	**2.07**	**0.10**	**0.52**	**184.79**	Eq. 1-1
Total VOCs (tpy):	**1.0E-03**	**5.2E-05**	**2.6E-04**	**9.2E-02**	
HAP Emissions (tpy)					
Benzene	2.7E-05	1.3E-06	3.7E-06	1.3E-03	
Cumene	5.2E-07	2.6E-08	2.6E-08	9.2E-06	
Ethylbenzene	3.3E-06	1.7E-07	1.6E-07	5.5E-05	
Hexane	5.8E-05	2.9E-06	9.7E-06	3.5E-03	
Toluene	2.1E-05	1.1E-06	3.2E-06	1.2E-03	
Xylenes (isomers and mixture)	1.3E-06	6.7E-08	1.0E-07	3.7E-05	
Total HAPs (tpy):	**1.1E-04**	**5.6E-06**	**1.7E-05**	**6.0E-03**	

Tank Information				
Parameter	**Diesel Beam Tank**	**Diesel Day Tank**	**Used Oil Tank**	**Crude Storage Tank**
Tank Contents	Diesel	Diesel	Used Lube Oil	Crude
Tank Capacity (gallons)	25,137	513	2,472	7,424
Orientation	Horizontal	Horizontal	Vertical	Vertical
Diameter (ft)	12	3.7	6.5	10
Length (ft) / Height (ft)	30	6.5	10	13
Color	Gray (medium)	Gray (medium)	Gray (medium)	Gray (medium)
Roof	NA	NA	Dome	Dome
Diesel Throughput (gal/yr)	6,284	6,156	29,664	89,088
Paint Condition	Average	Average	Average	Average
Paint Solar Absorptance, α	0.71	0.71	0.71	0.71

Meteorological Inputs (Kenai, AK)		
Average Daily Max Temp, T_{AX}	43.4 ^{o}F	503.1 ^{o}R
Average Daily Min Temp, T_{AN}	27.0 ^{o}F	486.7 ^{o}R
Insolation Factor, i	838 Btu/ft^2-d	

Fuel Constants		
Parameter	**Diesel**	**Crude**
Vapor Molecular Weight, M_V	130 lb/lb-mol	50 lb/lb-mol
Vapor Pressure Constant, A	12.101	11
Vapor Pressure Constant, B	8,907.0 °R	5,575 °R
RVP	N/A	4.0 psi

Component Vapor Mass Fraction [2]		
Component	**Diesel**	**Crude**
Benzene	2.57	1.41
Cumene	0.05	0.01
Ethylbenzene	0.32	0.06
Hexane	5.61	3.75
Toluene	2.06	1.25
Xylenes	0.13	0.04

Notes:

[1] Reference: AP-42 Section 7.1

[2] EPA SPECIATE online profiles.

Table D-8. SO_2 Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	200 ppmv H_2S [2]	Mass Balance	5.55 tpy	5.55 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	200 ppmv H_2S [2]	Mass Balance	5.55 tpy	5.55 tpy	5.41 tpy
3	AC Generator #1 Drive	FG	750 kW	200 ppmv H_2S [2]	Mass Balance	1.70 tpy	1.70 tpy	1.70 tpy
4	Gas Lift Compressor	FG	1,100 hp	200 ppmv H_2S [2]	Mass Balance	1.73 tpy	1.73 tpy	1.68 tpy
5	AC Generator #2 Drive	FG	750 kW	200 ppmv H_2S [2]	Mass Balance	1.70 tpy	1.70 tpy	1.70 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	200 ppmv H_2S [2]	Mass Balance	1.73 tpy	1.73 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	200 ppmv H_2S [2]	Mass Balance	1.73 tpy	1.73 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	0.5 wt% S	Mass Balance	18.02 tpy	23.21 tpy	2.20 tpy
9a	Drill Generator #2	Diesel	1,105 kW	0.5 wt% S	Mass Balance		23.21 tpy	1.65 tpy
10a	Drill Generator #3	Diesel	1,105 kW	0.5 wt% S	Mass Balance		23.21 tpy	3.72 tpy
13	East Crane	Diesel	420 hp	0.3 wt% S [3]	Mass Balance	1.40 tpy	3.95 tpy	0.33 tpy
14	West Crane	Diesel	230 hp	0.3 wt% S [3]	Mass Balance	0.51 tpy	2.16 tpy	0.05 tpy
15	Boiler	FG	4.763 MMBtu/hr	200 ppmv H_2S [2]	Mass Balance	0.67 tpy	0.67 tpy	0.48 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	200 ppmv H_2S [2]	Mass Balance	1.55 tpy	1.55 tpy	0.98 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	0.5 wt% S	Mass Balance	1.33 tpy	1.33 tpy	3.0E-04 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	0.5 wt% S	Mass Balance	0.61 tpy	10.73 tpy	0.02 tpy
26	Generator Drive	FG	4,400 hp	650 ppmv H_2S [4]	Mass Balance	18.41 tpy	18.41 tpy	0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	200 ppmv H_2S [2]	Mass Balance	0.54 tpy	0.54 tpy	0.18 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	513 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	56 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
					Total Emissions	**62.74 tpy**	**128.67 tpy**	**20.09 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

[2] Calculations use 200 ppmv H_2S as a conservative estimate based on an average of the past 5 years of H_2S concentration data.

[3] Fuel sulfur content for EU IDs 13 and 14 is limited to 0.3 percent sulfur by weight per Condition 2 of Permit No. AQ0067CPT01.

[4] Fuel sulfur content for EU ID 26 is limited to 650 parts per million by volume (ppmv) per Condition 7.1 of Minor Permit No. AQ0067MSS01.

Table D-9. CO_2e Emissions
Hilcorp Alaska, LLC - Monopod Platform

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions [1]	Unlimited Potential Emissions [1]	Estimated Actual Emissions [1]
Significant Units								
1	Gas Compressor Set #1	FG	4,400 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	20,220 tpy	20,220 tpy	0 tpy
2	Gas Compressor Set #2	FG	4,400 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	20,220 tpy	20,220 tpy	19,694 tpy
3	AC Generator #1 Drive	FG	750 kW	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	6,202 tpy	6,202 tpy	6,183 tpy
4	Gas Lift Compressor	FG	1,100 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	6,284 tpy	6,284 tpy	6,120 tpy
5	AC Generator #2 Drive	FG	750 kW	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	6,202 tpy	6,202 tpy	6,185 tpy
6	Waterflood Pump #1 Drive	FG	1,100 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	6,284 tpy	6,284 tpy	0 tpy
7	Waterflood Pump #2 Drive	FG	1,100 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	6,284 tpy	6,284 tpy	0 tpy
8a	Drill Generator #1	Diesel	1,105 kW	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2	5,770 tpy	7,433 tpy	704 tpy
9a	Drill Generator #2	Diesel	1,105 kW	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2		7,433 tpy	529 tpy
10a	Drill Generator #3	Diesel	1,105 kW	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2		7,433 tpy	1,191 tpy
13	East Crane	Diesel	420 hp	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2	750 tpy	2,107 tpy	178 tpy
14	West Crane	Diesel	230 hp	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2	273 tpy	1,154 tpy	26 tpy
15	Boiler	FG	4.763 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	2,443 tpy	2,443 tpy	1,749 tpy
16	TEG Dehydration Unit	N/A	10 MMscf/day	N/A	N/A	1,741 tpy	1,741 tpy	1,184 tpy
17	Low Pressure Flare – NW	FG	91.5 MMscf/yr	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	5,625 tpy	5,625 tpy	3,550 tpy
18	High Pressure Flare and Pilot – NW	FG						
19	Low Pressure Flare – South	FG						
20	High Pressure Flare and Pilot – South	FG						
21	Fire Water Pump Drive	Diesel	85 hp	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2	426 tpy	426 tpy	0.1 tpy
23a	Emergency Generator Drive #7	Diesel	685 hp	74.21 kg/MMBtu	40 CFR 98 Table C-1 & 2	196 tpy	3,436 tpy	5.2 tpy
26	Generator Drive	FG	4,400 hp	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	20,622 tpy	20,622 tpy	0 tpy
Insignificant Units								
22	Boiler #2	FG	3.8 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Table C-1 & 2	1,949 tpy	1,949 tpy	651 tpy
N/A	Diesel Beam Tank 1	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 2	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 3	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Beam Tank 4	Diesel	25,137 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Shipping Tank	Crude	7,424 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Crude Oil Well Clean Tank	Crude	7,138 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	513 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Day Tank	Diesel	56 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel Crane Tank	Diesel	75 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Diesel/Demulsifier Tank	Diesel	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	300 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Lube Oil Tank	Lube Oil	80 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Used Oil Tank	Used Oil	2,472 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Hydraulic Oil Tank	Hydraulic Oil	500 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
N/A	Paraffin Dispersant Tank	Paraffin Dispersant	550 gal	N/A	N/A	0 tpy	0 tpy	0 tpy
					Total Emisions	**111,491 tpy**	**133,498 tpy**	**47,948 tpy**

Notes:

[1] Conversions

Fuel Gas Heat Content:	1,050 Btu/scf (Platform Gas)	Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Diesel Fuel Heat Content:	137,000 Btu/gal	Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Diesel Fuel Density:	7 lb/gal	Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr
Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr

Table D-10. HAP Summary
Hilcorp Alaska, LLC - Monopod Platform

Hazardous Air Pollutant	Limited Potential Emissions (tpy)[1]									Unlimited Potential Emissions (tpy)[1]									Estimated Actual Emissions (tpy)[1]								
	Significant Units						*Insignificant Units*		Total	*Significant Units*						*Insignificant Units*		Total	*Significant Units*						*Insignificant Units*		Total
	Gas Turbines	Diesel Engines ≤ 600 hp	Diesel Engines > 600 hp	Flares	Gas Boilers	TEG Dehy. Unit	Gas Boilers/Heaters	Tanks		Gas Turbines	Diesel Engines ≤ 600 hp	Diesel Engines > 600 hp	Flares	Gas Boilers	TEG Dehy. Unit	Gas Boilers/Heaters	Tanks		Gas Turbines	Diesel Engines ≤ 600 hp	Diesel Engines > 600 hp	Flares	Gas Boilers	TEG Dehy. Unit	Gas Boilers/ Heaters	Tanks	
1,3-Butadiene	3.4E-04	3.5E-04	--[2]	--	--	--	--	--	6.9E-04	3.4E-04	8.8E-04	--	--	--	--	--	--	1.2E-03	1.4E-04	4.9E-05	--	--	--	--	--	--	1.9E-04
Acetaldehyde	3.2E-02	6.8E-03	9.2E-04	2.0E-03	--	--	--	--	4.1E-02	3.2E-02	1.7E-02	4.0E-03	2.0E-03	--	--	--	--	5.5E-02	1.3E-02	9.6E-04	3.7E-04	1.2E-03	--	--	--	--	1.6E-02
Acrolein	5.0E-03	8.2E-04	2.9E-04	4.6E-04	--	--	--	--	6.6E-03	5.0E-03	2.1E-03	1.2E-03	4.6E-04	--	--	--	--	8.8E-03	2.1E-03	1.2E-04	1.2E-04	2.9E-04	--	--	--	--	2.6E-03
Arsenic Compounds	--	--	--	--	4.0E-06	--	1.1E-05	--	1.5E-05	--	--	--	--	2.8E-06	--	7.1E-06	--	9.9E-06	--	--	--	--	2.8E-06	--	1.1E-06	--	3.9E-06
Benzene	9.5E-03	8.3E-03	2.8E-02	7.3E-03	4.2E-05	1.53	1.2E-04	2.7E-03	1.58	9.5E-03	2.1E-02	1.2E-01	7.3E-03	3.0E-05	1.53	7.4E-05	2.7E-03	1.69	3.9E-03	1.2E-03	1.2E-02	4.6E-03	3.0E-05	1.27	1.1E-05	2.7E-03	1.30
Beryllium Compounds	--	--	--	--	2.4E-07	--	6.7E-07	--	9.1E-07	--	--	--	--	1.7E-07	--	4.2E-07	--	6.0E-07	--	--	--	--	1.7E-07	--	6.4E-08	--	2.3E-07
Cadmium Compounds	--	--	--	--	2.2E-05	--	6.1E-05	--	8.3E-05	--	--	--	--	1.6E-05	--	3.9E-05	--	5.5E-05	--	--	--	--	1.6E-05	--	5.8E-06	--	2.1E-05
Chromium Compounds	--	--	--	--	2.8E-05	--	7.8E-05	--	1.1E-04	--	--	--	--	2.0E-05	--	5.0E-05	--	6.9E-05	--	--	--	--	2.0E-05	--	7.4E-06	--	2.7E-05
Cobalt Compounds	--	--	--	--	1.7E-06	--	4.7E-06	--	6.3E-06	--	--	--	--	1.2E-06	--	3.0E-06	--	4.2E-06	--	--	--	--	1.2E-06	--	4.4E-07	--	1.6E-06
Cumene	--	--	--	--	--	--	--	2.1E-05	2.1E-05	--	--	--	--	--	--	--	2.1E-05	2.1E-05	--	--	--	--	--	--	--	2.1E-05	2.1E-05
Dichlorobenzene	--	--	--	--	2.4E-05	--	6.7E-05	--	9.1E-05	--	--	--	--	1.7E-05	--	4.2E-05	--	6.0E-05	--	--	--	--	1.7E-05	--	6.4E-06	--	2.3E-05
Ethyl benzene	2.5E-02	--	--	6.6E-02	--	--	--	1.3E-04	9.1E-02	2.5E-02	--	--	6.6E-02	--	--	--	1.3E-04	9.1E-02	1.0E-02	--	--	4.2E-02	--	--	--	1.3E-04	5.2E-02
Formaldehyde	5.6E-01	1.0E-02	2.9E-03	5.3E-02	1.5E-03	--	4.2E-03	--	6.3E-01	5.6E-01	2.7E-02	1.2E-02	5.3E-02	1.1E-03	--	2.7E-03	--	6.6E-01	2.3E-01	1.5E-03	1.2E-03	3.4E-02	1.1E-03	--	4.0E-04	--	2.7E-01
Lead Compounds	--	--	--	--	9.9E-06	--	2.8E-05	--	3.8E-05	--	--	--	--	7.1E-06	--	1.8E-05	--	2.5E-05	--	--	--	--	7.1E-06	--	2.6E-06	--	9.8E-06
Manganese Compounds	--	--	--	--	7.6E-06	--	2.1E-05	--	2.9E-05	--	--	--	--	5.4E-06	--	1.3E-05	--	1.9E-05	--	--	--	--	5.4E-06	--	2.0E-06	--	7.4E-06
Mercury Compounds	--	--	--	--	5.2E-06	--	1.4E-05	--	2.0E-05	--	--	--	--	3.7E-06	--	9.2E-06	--	1.3E-05	--	--	--	--	3.7E-06	--	1.4E-06	--	5.1E-06
Naphthalene	1.0E-03	7.5E-04	4.7E-03	5.0E-04	1.2E-05	--	3.4E-05	--	7.1E-03	1.0E-03	1.9E-03	2.0E-02	5.0E-04	8.7E-06	--	2.2E-05	--	2.4E-02	4.2E-04	1.1E-04	1.9E-03	3.2E-04	8.7E-06	--	3.2E-06	--	2.8E-03
n-Hexane	--	--	--	1.3E-03	3.6E-02	0.64	1.0E-01	7.2E-03	0.78	--	--	--	1.3E-03	2.6E-02	0.64	6.4E-02	7.2E-03	0.74	--	--	--	8.4E-04	2.6E-02	0.44	9.5E-03	7.2E-03	0.48
Nickel Compounds	--	--	--	--	4.2E-05	--	1.2E-04	--	1.6E-04	--	--	--	--	3.0E-05	--	7.4E-05	--	1.0E-04	--	--	--	--	3.0E-05	--	1.1E-05	--	4.1E-05
Polycyclic Organic Matter	1.7E-03	7.4E-04	3.0E-03	1.4E-04	1.8E-06	--	4.9E-06	--	5.6E-03	1.7E-03	1.9E-03	1.3E-02	1.4E-04	1.3E-06	--	3.1E-06	--	1.7E-02	7.2E-04	1.0E-04	1.2E-03	8.7E-05	1.3E-06	--	4.7E-07	--	2.1E-03
Propylene oxide	2.3E-02	--	--	--	--	--		--	2.3E-02	2.3E-02	--	--	--	--	--	--	--	2.3E-02	9.5E-03	--	--	--	--	--	--	--	9.5E-03
Selenium Compounds	--	--	--	--	4.8E-07	--	1.3E-06	--	1.8E-06	--	--	--	--	3.4E-07	--	8.5E-07	--	1.2E-06	--	--	--	--	3.4E-07	--	1.3E-07	--	4.7E-07
Toluene	1.0E-01	3.6E-03	1.0E-02	2.7E-03	6.8E-05	1.37	1.9E-04	2.4E-03	1.50	1.0E-01	9.2E-03	4.4E-02	2.7E-03	4.8E-05	1.37	1.2E-04	2.4E-03	1.54	4.2E-02	5.1E-04	4.2E-03	1.7E-03	4.8E-05	1.15	1.8E-05	2.4E-03	1.20
2,2,4-Trimethylpentane	--	--	--	--	--	0.04	--	--	4.4E-02	--	--	--	--	--	0.04	--	--	4.4E-02	--	--	--	--	--	0.03	--	--	3.1E-02
Xylenes	5.0E-02	2.5E-03	7.0E-03	1.3E-03	--	1.53	--	8.0E-05	1.60	5.0E-02	6.4E-03	3.0E-02	1.3E-03	--	1.53	--	8.0E-05	1.62	2.1E-02	3.6E-04	2.9E-03	8.4E-04	--	1.29	--	8.0E-05	1.32
Total HAP Emissions	**0.81**	**0.03**	**0.06**	**0.14**	**0.04**	**5.12**	**0.10**	**0.01**	**6.31**	**0.81**	**0.09**	**0.25**	**0.14**	**0.03**	**5.12**	**0.07**	**0.01**	**6.51**	**0.33**	**4.8E-03**	**0.02**	**0.09**	**0.03**	**4.19**	**0.01**	**0.01**	**4.68**

Notes:

[1] See individual unit category emissions calculations for details on methodology and assumptions and HAPs for individual emission units.

[2] Not applicable to this emission unit category.

Table D-11. HAP Emissions - Fuel Gas Fired Turbines
Hilcorp Alaska, LLC - Monopod Platform

Section 112 Hazardous Air Pollutants			Source Category Emission Calculations [1,2]											
CAS No.	Chemical Name	Emission Factor [3]	Limited Potential Emissions				Unlimited Potential Emissions				Estimated Actual Emissions			
			EU IDs 1/2	EU IDs 3/5	EU IDs 4/6/7	EU ID 26	EU IDs 1/2	EU IDs 3/5	EU IDs 4/6/7	EU ID 26	EU IDs 2	EU ID 3	EU IDs 4	EU ID 5
106990	1,3-Butadiene	4.3E-07 lb/MMBtu	7.4E-05 tpy	2.3E-05 tpy	2.3E-05 tpy	7.6E-05 tpy	7.4E-05 tpy	2.3E-05 tpy	2.3E-05 tpy	7.6E-05 tpy	7.2E-05 tpy	2.3E-05 tpy	2.2E-05 tpy	2.3E-05 tpy
75070	Acetaldehyde	4.0E-05 lb/MMBtu	6.9E-03 tpy	2.1E-03 tpy	2.1E-03 tpy	7.0E-03 tpy	6.9E-03 tpy	2.1E-03 tpy	2.1E-03 tpy	7.0E-03 tpy	6.7E-03 tpy	2.1E-03 tpy	2.1E-03 tpy	2.1E-03 tpy
107028	Acrolein	6.4E-06 lb/MMBtu	1.1E-03 tpy	3.4E-04 tpy	3.4E-04 tpy	1.1E-03 tpy	1.1E-03 tpy	3.4E-04 tpy	3.4E-04 tpy	1.1E-03 tpy	1.1E-03 tpy	3.4E-04 tpy	3.3E-04 tpy	3.4E-04 tpy
71432	Benzene	1.2E-05 lb/MMBtu	2.1E-03 tpy	6.4E-04 tpy	6.4E-04 tpy	2.1E-03 tpy	2.1E-03 tpy	6.4E-04 tpy	6.4E-04 tpy	2.1E-03 tpy	2.0E-03 tpy	6.3E-04 tpy	6.3E-04 tpy	6.3E-04 tpy
100414	Ethyl benzene	3.2E-05 lb/MMBtu	5.5E-03 tpy	1.7E-03 tpy	1.7E-03 tpy	5.6E-03 tpy	5.5E-03 tpy	1.7E-03 tpy	1.7E-03 tpy	5.6E-03 tpy	5.4E-03 tpy	1.7E-03 tpy	1.7E-03 tpy	1.7E-03 tpy
5000	Formaldehyde	7.1E-04 lb/MMBtu	1.2E-01 tpy	3.8E-02 tpy	3.8E-02 tpy	1.3E-01 tpy	1.2E-01 tpy	3.8E-02 tpy	3.8E-02 tpy	1.3E-01 tpy	1.2E-01 tpy	3.7E-02 tpy	3.7E-02 tpy	3.7E-02 tpy
91203	Naphthalene	1.3E-06 lb/MMBtu	2.2E-04 tpy	6.9E-05 tpy	7.0E-05 tpy	2.3E-04 tpy	2.2E-04 tpy	6.9E-05 tpy	7.0E-05 tpy	2.3E-04 tpy	2.2E-04 tpy	6.9E-05 tpy	6.8E-05 tpy	6.9E-05 tpy
N/A	Polycyclic Organic Matter	2.2E-06 lb/MMBtu	3.8E-04 tpy	1.2E-04 tpy	1.2E-04 tpy	3.9E-04 tpy	3.8E-04 tpy	1.2E-04 tpy	1.2E-04 tpy	3.9E-04 tpy	3.7E-04 tpy	1.2E-04 tpy	1.1E-04 tpy	1.2E-04 tpy
75569	Propylene oxide	2.9E-05 lb/MMBtu	5.0E-03 tpy	1.5E-03 tpy	1.6E-03 tpy	5.1E-03 tpy	5.0E-03 tpy	1.5E-03 tpy	1.6E-03 tpy	5.1E-03 tpy	4.9E-03 tpy	1.5E-03 tpy	1.5E-03 tpy	1.5E-03 tpy
108883	Toluene	1.3E-04 lb/MMBtu	2.2E-02 tpy	6.9E-03 tpy	7.0E-03 tpy	2.3E-02 tpy	2.2E-02 tpy	6.9E-03 tpy	7.0E-03 tpy	2.3E-02 tpy	2.2E-02 tpy	6.9E-03 tpy	6.8E-03 tpy	6.9E-03 tpy
1330207	Xylenes	6.4E-05 lb/MMBtu	1.1E-02 tpy	3.4E-03 tpy	3.4E-03 tpy	1.1E-02 tpy	1.1E-02 tpy	3.4E-03 tpy	3.4E-03 tpy	1.1E-02 tpy	1.1E-02 tpy	3.4E-03 tpy	3.3E-03 tpy	3.4E-03 tpy
		Total HAP Emissions	**0.18 tpy**	**0.05 tpy**	**0.06 tpy**	**0.18 tpy**	**0.18 tpy**	**0.05 tpy**	**0.06 tpy**	**0.18 tpy**	**0.17 tpy**	**0.05 tpy**	**0.05 tpy**	**0.05 tpy**

Notes:

[1] Heat consumption, shown below, is based on operations and unit ratings as listed in Table 2.

EU ID	Name	Limited Operation	Unlimited Operation	Actual Operation
1	Gas Compressor Set #1	345,354 MMBtu/yr	345,354 MMBtu/yr	0 MMBtu/yr
2	Gas Compressor Set #2	345,354 MMBtu/yr	345,354 MMBtu/yr	336,366 MMBtu/yr
3	AC Generator #1 Drive	105,922 MMBtu/yr	105,922 MMBtu/yr	105,607 MMBtu/yr
4	Gas Lift Compressor	107,326 MMBtu/yr	107,326 MMBtu/yr	104,532 MMBtu/yr
5	AC Generator #2 Drive	105,922 MMBtu/yr	105,922 MMBtu/yr	105,631 MMBtu/yr
6	Waterflood Pump #1 Drive	107,326 MMBtu/yr	107,326 MMBtu/yr	0 MMBtu/yr
7	Waterflood Pump #2 Drive	107,326 MMBtu/yr	107,326 MMBtu/yr	0 MMBtu/yr
26	Generator Drive (in SoLoNOX, > 0°F)	352,215 MMBtu/yr	352,215 MMBtu/yr	0 MMBtu/yr

[2] Conversions:

Gas-fired Turbines (Units 1 and 2):	8,960 Btu/hp-hr
Gas-fired Turbines (Units 3 and 5):	16,122 Btu/kW-hr
Gas-fired Turbines (Units 4 and 7):	11,138 Btu/hp-hr
Gas-fired Turbines (Unit 26):	9,138 Btu/hp-hr

[3] Reference: AP-42, Tables 3.1-3.

Table D-12. HAP Emissions - Diesel-Fired Engines ≤ 600 hp
Hilcorp Alaska, LLC - Monopod Platform

Section 112 Hazardous Air Pollutants			Source Category Emission Calculations [1,2]								
CAS No.	Chemical Name	Emission Factor [3]	Limited Potential Emissions			Unlimited Potential Emissions			Estimated Actual Emissions		
			EU ID 13	EU ID 14	EU ID 21	EU ID 13	EU ID 14	EU ID 21	EU ID 13	EU ID 14	EU ID 21
106990	1,3-Butadiene	3.91E-05 lb/MMBtu	1.8E-04 tpy	6.5E-05 tpy	1.0E-04 tpy	5.0E-04 tpy	2.8E-04 tpy	1.0E-04 tpy	4.3E-05 tpy	6.2E-06 tpy	2.3E-08 tpy
75070	Acetaldehyde	7.67E-04 lb/MMBtu	3.5E-03 tpy	1.3E-03 tpy	2.0E-03 tpy	9.9E-03 tpy	5.4E-03 tpy	2.0E-03 tpy	8.3E-04 tpy	1.2E-04 tpy	4.6E-07 tpy
107028	Acrolein	9.25E-05 lb/MMBtu	4.2E-04 tpy	1.5E-04 tpy	2.4E-04 tpy	1.2E-03 tpy	6.5E-04 tpy	2.4E-04 tpy	1.0E-04 tpy	1.5E-05 tpy	5.5E-08 tpy
71432	Benzene	9.33E-04 lb/MMBtu	4.3E-03 tpy	1.6E-03 tpy	2.4E-03 tpy	1.2E-02 tpy	6.6E-03 tpy	2.4E-03 tpy	1.0E-03 tpy	1.5E-04 tpy	5.6E-07 tpy
5000	Formaldehyde	1.18E-03 lb/MMBtu	5.4E-03 tpy	2.0E-03 tpy	3.1E-03 tpy	1.5E-02 tpy	8.3E-03 tpy	3.1E-03 tpy	1.3E-03 tpy	1.9E-04 tpy	7.0E-07 tpy
91203	Naphthalene	8.48E-05 lb/MMBtu	3.9E-04 tpy	1.4E-04 tpy	2.2E-04 tpy	1.1E-03 tpy	6.0E-04 tpy	2.2E-04 tpy	9.2E-05 tpy	1.3E-05 tpy	5.0E-08 tpy
N/A	Polycyclic Organic Matter	8.32E-05 lb/MMBtu	3.8E-04 tpy	1.4E-04 tpy	2.2E-04 tpy	1.1E-03 tpy	5.9E-04 tpy	2.2E-04 tpy	9.1E-05 tpy	1.3E-05 tpy	5.0E-08 tpy
108883	Toluene	4.09E-04 lb/MMBtu	1.9E-03 tpy	6.8E-04 tpy	1.1E-03 tpy	5.3E-03 tpy	2.9E-03 tpy	1.1E-03 tpy	4.4E-04 tpy	6.5E-05 tpy	2.4E-07 tpy
1330207	Xylenes	2.85E-04 lb/MMBtu	1.3E-03 tpy	4.8E-04 tpy	7.4E-04 tpy	3.7E-03 tpy	2.0E-03 tpy	7.4E-04 tpy	3.1E-04 tpy	4.5E-05 tpy	1.7E-07 tpy
		Total HAP Emissions	**0.02 tpy**	**6.5E-03 tpy**	**0.01 tpy**	**0.05 tpy**	**2.7E-02 tpy**	**0.01 tpy**	**4.2E-03 tpy**	**6.1E-04 tpy**	**2.3E-06 tpy**

Notes:

[1] Heat consumption, shown below, is based on operations and unit ratings as listed in Table 2.

EU ID	Name	Limited Operation	Unlimited Operation	Actual Operation
13	East Crane	9,165 MMBtu/yr	25,754 MMBtu/yr	2,176 MMBtu/yr
14	West Crane	3,343 MMBtu/yr	14,104 MMBtu/yr	317 MMBtu/yr
21	Fire Water Pump Drive	5,212 MMBtu/yr	5,212 MMBtu/yr	1 MMBtu/yr

[2] Conversions

Diesel Engine Heat Rate: 7,000 Btu/hp-hr
Diesel Fuel Heat Content: 137,000 Btu/gal

[3] Reference: AP-42, Tables 3.3-2.

Table D-13. HAP Emissions - Diesel-Fired Engines > 600 hp
Hilcorp Alaska, LLC - Monopod Platform

Section 112 Hazardous Air Pollutants		Source Category Emission Calculations [1,2]								
CAS No.	Chemical Name	Emission Factor [3]	Limited Potential Emissions		Unlimited Potential Emissions		Estimated Actual Emissions			
			EU IDs 8a-10a	EU ID 23a	EU IDs 8a/9a/10a	EU ID 23a	EU ID 8a	EU ID 9a	EU ID 10a	EU ID 23a
75070	Acetaldehyde	2.52E-05 lb/MMBtu	8.9E-04 tpy	3.0E-05 tpy	1.1E-03 tpy	5.3E-04 tpy	1.1E-04 tpy	8.1E-05 tpy	1.8E-04 tpy	8.0E-07 tpy
107028	Acrolein	7.88E-06 lb/MMBtu	2.8E-04 tpy	9.4E-06 tpy	3.6E-04 tpy	1.7E-04 tpy	3.4E-05 tpy	2.5E-05 tpy	5.7E-05 tpy	2.5E-07 tpy
71432	Benzene	7.76E-04 lb/MMBtu	2.7E-02 tpy	9.3E-04 tpy	3.5E-02 tpy	1.6E-02 tpy	3.3E-03 tpy	2.5E-03 tpy	5.6E-03 tpy	2.5E-05 tpy
5000	Formaldehyde	7.89E-05 lb/MMBtu	2.8E-03 tpy	9.5E-05 tpy	3.6E-03 tpy	1.7E-03 tpy	3.4E-04 tpy	2.5E-04 tpy	5.7E-04 tpy	2.5E-06 tpy
91203	Naphthalene	1.30E-04 lb/MMBtu	4.6E-03 tpy	1.6E-04 tpy	5.9E-03 tpy	2.7E-03 tpy	5.6E-04 tpy	4.2E-04 tpy	9.5E-04 tpy	4.1E-06 tpy
N/A	Polycyclic Organic Matter	8.20E-05 lb/MMBtu	2.9E-03 tpy	9.8E-05 tpy	3.7E-03 tpy	1.7E-03 tpy	3.5E-04 tpy	2.6E-04 tpy	6.0E-04 tpy	2.6E-06 tpy
108883	Toluene	2.81E-04 lb/MMBtu	9.9E-03 tpy	3.4E-04 tpy	1.3E-02 tpy	5.9E-03 tpy	1.2E-03 tpy	9.1E-04 tpy	2.0E-03 tpy	9.0E-06 tpy
1330207	Xylenes	1.93E-04 lb/MMBtu	6.8E-03 tpy	2.3E-04 tpy	8.8E-03 tpy	4.1E-03 tpy	8.3E-04 tpy	6.2E-04 tpy	1.4E-03 tpy	6.2E-06 tpy
		Total HAP Emissions	**0.06 tpy**	**1.9E-03 tpy**	**0.07 tpy**	**0.03 tpy**	**6.8E-03 tpy**	**5.1E-03 tpy**	**1.1E-02 tpy**	**5.0E-05 tpy**

Notes:

[1] Heat consumption, shown below, is based on operations and unit ratings as listed in Table 2.

EU ID	Name	Limited Operation	Unlimited Operation	Actual Operation
8a	Drill Generator #1	70,534 MMBtu/yr	90,864 MMBtu/yr	8,604 MMBtu/yr
9a	Drill Generator #2		90,864 MMBtu/yr	6,462 MMBtu/yr
10a	Drill Generator #3		90,864 MMBtu/yr	14,553 MMBtu/yr
23a	Emergency Generator Drive #7	2,398 MMBtu/yr	42,004 MMBtu/yr	64 MMBtu/yr

[2] Conversions

Diesel Engine Heat Rate: 7,000 Btu/hp-hr

[3] Reference: AP-42, Tables 3.4-3 and 3.4-4.

Table D-14. HAP Emissions - Flares
Hilcorp Alaska, LLC - Monopod Platform

Section 112 Hazardous Air Pollutants		Source Category Emission Calculations [1]			
CAS No.	Chemical Name	Emission Factor [2]	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
			EU IDs 17 thru 20	EU IDs 17 thru 20	EU IDs 17 thru 20
75070	Acetaldehyde	0.043 lb/MMscf	2.0E-03 tpy	2.0E-03 tpy	1.2E-03 tpy
107028	Acrolein	0.010 lb/MMscf	4.6E-04 tpy	4.6E-04 tpy	2.9E-04 tpy
71432	Benzene	0.159 lb/MMscf	7.3E-03 tpy	7.3E-03 tpy	4.6E-03 tpy
100414	Ethyl benzene	1.444 lb/MMscf	6.6E-02 tpy	6.6E-02 tpy	4.2E-02 tpy
5000	Formaldehyde	1.169 lb/MMscf	5.3E-02 tpy	5.3E-02 tpy	3.4E-02 tpy
110543	n-Hexane	0.029 lb/MMscf	1.3E-03 tpy	1.3E-03 tpy	8.4E-04 tpy
91203	Naphthalene	0.011 lb/MMscf	5.0E-04 tpy	5.0E-04 tpy	3.2E-04 tpy
N/A	Polycyclic Organic Matter	0.003 lb/MMscf	1.4E-04 tpy	1.4E-04 tpy	8.7E-05 tpy
108883	Toluene	0.058 lb/MMscf	2.7E-03 tpy	2.7E-03 tpy	1.7E-03 tpy
1330207	Xylenes	0.029 lb/MMscf	1.3E-03 tpy	1.3E-03 tpy	8.4E-04 tpy
		Total HAP Emissions	**0.14 tpy**	**0.14 tpy**	**0.09 tpy**

Notes:

[1] Heat consumption, shown below, is based on operations and unit ratings as listed in Table 2.

EU ID	Name	Limited Operation	Unlimited Operation	Actual Operation
17	Flare (LP)	91.5 MMscf/yr	91.5 MMscf/yr	57.7 MMscf/yr
18	Flare and Pilot (HP)			
19	Flare (LP)			
20	Flare and Pilot (HP)			

[2] Reference: Ventura County Air Pollution Control District, AB 2588 Combustion Emission Factors, May 17, 2001.

Table D-15. HAP Emissions - Boilers/Heaters
Hilcorp Alaska, LLC - Monopod Platform

Section 112 Hazardous Air Pollutants		Source Category Emission Calculations [1,2]							
CAS No.	Chemical Name	Emission Factor [3]	Limited Potential Emissions		Unlimited Potential Emissions		Estimated Actual Emissions	
			EU ID 15	EU ID 22	EU ID 15	EU ID 22	EU ID 15	EU ID 22
N/A	Arsenic Compounds	2.0E-04 lb/MMscf	4.0E-06 tpy	3.2E-06 tpy	4.0E-06 tpy	3.2E-06 tpy	2.8E-06 tpy	1.1E-06 tpy
71432	Benzene	2.1E-03 lb/MMscf	4.2E-05 tpy	3.3E-05 tpy	4.2E-05 tpy	3.3E-05 tpy	3.0E-05 tpy	1.1E-05 tpy
N/A	Beryllium Compounds	1.2E-05 lb/MMscf	2.4E-07 tpy	1.9E-07 tpy	2.4E-07 tpy	1.9E-07 tpy	1.7E-07 tpy	6.4E-08 tpy
N/A	Cadmium Compounds	1.1E-03 lb/MMscf	2.2E-05 tpy	1.7E-05 tpy	2.2E-05 tpy	1.7E-05 tpy	1.6E-05 tpy	5.8E-06 tpy
N/A	Chromium Compounds	1.4E-03 lb/MMscf	2.8E-05 tpy	2.2E-05 tpy	2.8E-05 tpy	2.2E-05 tpy	2.0E-05 tpy	7.4E-06 tpy
N/A	Cobalt Compounds	8.4E-05 lb/MMscf	1.7E-06 tpy	1.3E-06 tpy	1.7E-06 tpy	1.3E-06 tpy	1.2E-06 tpy	4.4E-07 tpy
25321226	Dichlorobenzene	1.2E-03 lb/MMscf	2.4E-05 tpy	1.9E-05 tpy	2.4E-05 tpy	1.9E-05 tpy	1.7E-05 tpy	6.4E-06 tpy
5000	Formaldehyde	7.5E-02 lb/MMscf	1.5E-03 tpy	1.2E-03 tpy	1.5E-03 tpy	1.2E-03 tpy	1.1E-03 tpy	4.0E-04 tpy
110543	n-Hexane	1.8E+00 lb/MMscf	3.6E-02 tpy	2.9E-02 tpy	3.6E-02 tpy	2.9E-02 tpy	2.6E-02 tpy	9.5E-03 tpy
N/A	Lead Compounds	5.0E-04 lb/MMscf	9.9E-06 tpy	7.9E-06 tpy	9.9E-06 tpy	7.9E-06 tpy	7.1E-06 tpy	2.6E-06 tpy
N/A	Manganese Compounds	3.8E-04 lb/MMscf	7.6E-06 tpy	6.0E-06 tpy	7.6E-06 tpy	6.0E-06 tpy	5.4E-06 tpy	2.0E-06 tpy
N/A	Mercury Compounds	2.6E-04 lb/MMscf	5.2E-06 tpy	4.1E-06 tpy	5.2E-06 tpy	4.1E-06 tpy	3.7E-06 tpy	1.4E-06 tpy
91203	Naphthalene	6.1E-04 lb/MMscf	1.2E-05 tpy	9.7E-06 tpy	1.2E-05 tpy	9.7E-06 tpy	8.7E-06 tpy	3.2E-06 tpy
N/A	Nickel Compounds	2.1E-03 lb/MMscf	4.2E-05 tpy	3.3E-05 tpy	4.2E-05 tpy	3.3E-05 tpy	3.0E-05 tpy	1.1E-05 tpy
N/A	Polycyclic Organic Matter	8.82E-05 lb/MMscf	1.8E-06 tpy	1.4E-06 tpy	1.8E-06 tpy	1.4E-06 tpy	1.3E-06 tpy	4.7E-07 tpy
N/A	Selenium Compounds	2.4E-05 lb/MMscf	4.8E-07 tpy	3.8E-07 tpy	4.8E-07 tpy	3.8E-07 tpy	3.4E-07 tpy	1.3E-07 tpy
108883	Toluene	3.4E-03 lb/MMscf	6.8E-05 tpy	5.4E-05 tpy	6.8E-05 tpy	5.4E-05 tpy	4.8E-05 tpy	1.8E-05 tpy
		Total HAP Emissions	**0.04 tpy**	**0.03 tpy**	**0.04 tpy**	**0.03 tpy**	**0.03 tpy**	**0.01 tpy**

Notes:

[1] Heat consumption, shown below, is based on operations and unit ratings as listed in Table 2. Emission Unit Inventory.

EU ID	Name	Limited Operation	Unlimited Operation	Actual Operation
15	Boiler	41,724 MMBtu/yr	41,724 MMBtu/yr	29,864 MMBtu/yr
22 (*Insignificant Unit*)	Boiler #2	33,288 MMBtu/yr	33,288 MMBtu/yr	11,123 MMBtu/yr

[2] Conversions

Clayton Boiler: 33,475 Btu/bhp-hr, heat output

Fuel Gas Heat Content: 1,050 Btu/scf (Platform Gas)

[3] Reference: Tables 1.4.2, 1.4-3 and 1.4-4.

GRI-GLYCalc VERSION 4.0 - AGGREGATE CALCULATIONS REPORT

Case Name: Monopod Platform
File Name: \\192.168.240.11\Projects\Hilcorp Alaska\Air Quality\Title V Permits\Monopod\TVP04\D Forms\MONOPOD 2023 DEHYDRATOR POTENTIAL OPERATION.DDF
Date: January 10, 2024

DESCRIPTION:

Description: Based on full gas composition analyzed on 3/6/2000 and 8,760 hour operation.

Annual Hours of Operation: 8760.0 hours/yr

EMISSIONS REPORTS:

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	11.6734	280.162	51.1296
Ethane	0.4779	11.470	2.0933
Propane	1.1288	27.092	4.9442
Isobutane	0.5533	13.280	2.4236
n-Butane	0.9332	22.397	4.0875
Isopentane	0.3961	9.507	1.7350
n-Pentane	0.3777	9.066	1.6545
Cyclopentane	0.1889	4.534	0.8275
n-Hexane	0.1168	2.802	0.5114
Cyclohexane	0.4636	11.126	2.0306
Other Hexanes	0.2387	5.729	1.0455
Heptanes	0.2102	5.045	0.9208
Methylcyclohexane	0.3504	8.410	1.5348
2,2,4-Trimethylpentane	0.0083	0.198	0.0362
Benzene	0.3447	8.273	1.5099
Toluene	0.3120	7.488	1.3665
Xylenes	0.3496	8.390	1.5312
C8+ Heavies	0.7060	16.943	3.0922
Total Emissions	18.8297	451.914	82.4743
Total Hydrocarbon Emissions	18.8297	451.914	82.4743
Total VOC Emissions	6.6784	160.281	29.2513
Total HAP Emissions	1.1313	27.152	4.9552
Total BTEX Emissions	1.0063	24.151	4.4076

FLASH TANK OFF GAS

Component	lbs/hr	lbs/day	tons/yr
Methane	4.1782	100.278	18.3007
Ethane	0.3653	8.768	1.6002
Propane	0.7939	19.055	3.4775
Isobutane	0.3361	8.066	1.4720
n-Butane	0.5153	12.367	2.2571
Isopentane	0.1806	4.335	0.7911
n-Pentane	0.1546	3.710	0.6771
Cyclopentane	0.0287	0.688	0.1255
n-Hexane	0.0295	0.707	0.1291

Cyclohexane	0.0364	0.873	0.1593
Other Hexanes	0.0746	1.789	0.3266
Heptanes	0.0269	0.646	0.1178
Methylcyclohexane	0.0201	0.482	0.0880
2,2,4-Trimethylpentane	0.0018	0.042	0.0077
Benzene	0.0035	0.085	0.0154
Toluene	0.0019	0.045	0.0082
Xylenes	0.0008	0.018	0.0033
C8+ Heavies	0.0090	0.217	0.0396
Total Emissions	6.7571	162.170	29.5961
Total Hydrocarbon Emissions	6.7571	162.170	29.5961
Total VOC Emissions	2.2135	53.125	9.6952
Total HAP Emissions	0.0374	0.897	0.1638
Total BTEX Emissions	0.0062	0.148	0.0270

COMBINED REGENERATOR VENT/FLASH GAS EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	15.8517	380.440	69.4303
Ethane	0.8433	20.238	3.6935
Propane	1.9228	46.146	8.4217
Isobutane	0.8894	21.345	3.8955
n-Butane	1.4485	34.765	6.3446
Isopentane	0.5767	13.842	2.5262
n-Pentane	0.5323	12.776	2.3316
Cyclopentane	0.2176	5.222	0.9530
n-Hexane	0.1462	3.510	0.6405
Cyclohexane	0.5000	11.999	2.1898
Other Hexanes	0.3133	7.518	1.3721
Heptanes	0.2371	5.691	1.0386
Methylcyclohexane	0.3705	8.892	1.6228
2,2,4-Trimethylpentane	0.0100	0.241	0.0439
Benzene	0.3482	8.358	1.5253
Toluene	0.3139	7.533	1.3747
Xylenes	0.3503	8.408	1.5345
C8+ Heavies	0.7150	17.160	3.1318
Total Emissions	25.5868	614.084	112.0704
Total Hydrocarbon Emissions	25.5868	614.084	112.0704
Total VOC Emissions	8.8919	213.406	38.9466
Total HAP Emissions	1.1687	28.049	5.1190
Total BTEX Emissions	1.0124	24.299	4.4345

COMBINED REGENERATOR VENT/FLASH GAS EMISSION CONTROL REPORT:

Component	Uncontrolled tons/yr	Controlled tons/yr	% Reduction
Methane	69.4303	69.4303	0.00
Ethane	3.6935	3.6935	0.00
Propane	8.4217	8.4217	0.00
Isobutane	3.8955	3.8955	0.00
n-Butane	6.3446	6.3446	0.00
Isopentane	2.5262	2.5262	0.00

n-Pentane	2.3316	2.3316	0.00
Cyclopentane	0.9530	0.9530	0.00
n-Hexane	0.6405	0.6405	0.00
Cyclohexane	2.1898	2.1898	0.00
Other Hexanes	1.3721	1.3721	0.00
Heptanes	1.0386	1.0386	0.00
Methylcyclohexane	1.6228	1.6228	0.00
2,2,4-Trimethylpentane	0.0439	0.0439	0.00
Benzene	1.5253	1.5253	0.00
Toluene	1.3747	1.3747	0.00
Xylenes	1.5345	1.5345	0.00
C8+ Heavies	3.1318	3.1318	0.00
Total Emissions	112.0704	112.0704	0.00
Total Hydrocarbon Emissions	112.0704	112.0704	0.00
Total VOC Emissions	38.9466	38.9466	0.00
Total HAP Emissions	5.1190	5.1190	0.00
Total BTEX Emissions	4.4345	4.4345	0.00

EQUIPMENT REPORTS:

ABSORBER

NOTE: Because the Calculated Absorber Stages was below the minimum allowed, GRI-GLYCalc has set the number of Absorber Stages to 1.25 and has calculated a revised Dry Gas Dew Point.

Calculated Absorber Stages:	1.25	
Calculated Dry Gas Dew Point:	5.06	lbs. H2O/MMSCF
Temperature:	130.0	deg. F
Pressure:	1120.0	psig
Dry Gas Flow Rate:	4.5300	MMSCF/day
Glycol Losses with Dry Gas:	0.3126	lb/hr
Wet Gas Water Content:	Saturated	
Calculated Wet Gas Water Content:	121.76	lbs. H2O/MMSCF
Calculated Lean Glycol Recirc. Ratio:	5.99	gal/lb H2O

Component	Remaining in Dry Gas	Absorbed in Glycol
Water	4.14%	95.86%
Carbon Dioxide	99.38%	0.62%
Nitrogen	99.93%	0.07%
Methane	99.94%	0.06%
Ethane	99.83%	0.17%
Propane	99.77%	0.23%
Isobutane	99.72%	0.28%
n-Butane	99.64%	0.36%
Isopentane	99.67%	0.33%
n-Pentane	99.59%	0.41%
Cyclopentane	98.21%	1.79%
n-Hexane	99.40%	0.60%
Cyclohexane	97.31%	2.69%
Other Hexanes	99.52%	0.48%
Heptanes	99.03%	0.97%

Methylcyclohexane	97.35%	2.65%
2,2,4-Trimethylpentane	99.57%	0.43%
Benzene	82.22%	17.78%
Toluene	77.32%	22.68%
Xylenes	67.01%	32.99%
C8+ Heavies	96.91%	3.09%

FLASH TANK

Flash Control: Vented to atmosphere
Flash Temperature: 100.0 deg. F
Flash Pressure: 40.0 psig

Component	Left in Glycol	Removed in Flash Gas
Water	99.98%	0.02%
Carbon Dioxide	40.92%	59.08%
Nitrogen	4.38%	95.62%
Methane	4.52%	95.48%
Ethane	15.82%	84.18%
Propane	29.87%	70.13%
Isobutane	41.11%	58.89%
n-Butane	48.61%	51.39%
Isopentane	53.73%	46.27%
n-Pentane	59.94%	40.06%
Cyclopentane	85.76%	14.24%
n-Hexane	74.66%	25.34%
Cyclohexane	92.55%	7.45%
Other Hexanes	68.62%	31.38%
Heptanes	86.89%	13.11%
Methylcyclohexane	94.49%	5.51%
2,2,4-Trimethylpentane	76.37%	23.63%
Benzene	99.03%	0.97%
Toluene	99.45%	0.55%
Xylenes	99.81%	0.19%
C8+ Heavies	98.83%	1.17%

REGENERATOR

Regenerator Stripping Gas:
Dry Product Gas
Stripping Gas Flow Rate: 5.0000 scfm

Component	Remaining in Glycol	Distilled Overhead
Water	35.93%	64.07%
Carbon Dioxide	0.00%	100.00%
Nitrogen	0.00%	100.00%
Methane	0.00%	100.00%
Ethane	0.00%	100.00%
Propane	0.00%	100.00%
Isobutane	0.00%	100.00%
n-Butane	0.00%	100.00%
Isopentane	0.93%	99.07%
n-Pentane	0.83%	99.17%

Cyclopentane	0.58%	99.42%
n-Hexane	0.67%	99.33%
Cyclohexane	3.46%	96.54%
Other Hexanes	1.46%	98.54%
Heptanes	0.58%	99.42%
Methylcyclohexane	4.24%	95.76%
2,2,4-Trimethylpentane	1.96%	98.04%
Benzene	5.04%	94.96%
Toluene	7.92%	92.08%
Xylenes	12.80%	87.20%
C8+ Heavies	12.08%	87.92%

STREAM REPORTS:

WET GAS STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 1.89e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	2.57e-001	2.31e+001
Carbon Dioxide	8.96e-001	1.97e+002
Nitrogen	2.02e+000	2.83e+002
Methane	9.02e+001	7.23e+003
Ethane	1.72e+000	2.58e+002
Propane	2.27e+000	4.99e+002
Isobutane	6.93e-001	2.01e+002
n-Butane	9.71e-001	2.82e+002
Isopentane	3.30e-001	1.19e+002
n-Pentane	2.60e-001	9.38e+001
Cyclopentane	3.19e-002	1.12e+001
n-Hexane	4.49e-002	1.93e+001
Cyclohexane	4.19e-002	1.76e+001
Other Hexanes	1.15e-001	4.93e+001
Heptanes	4.19e-002	2.10e+001
Methylcyclohexane	2.69e-002	1.32e+001
2,2,4-Trimethylpentane	2.99e-003	1.71e+000
Benzene	4.99e-003	1.94e+000
Toluene	2.99e-003	1.38e+000
Xylenes	1.99e-003	1.06e+000
C8+ Heavies	2.59e-002	2.20e+001
Total Components	100.00	9.34e+003

DRY GAS STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 1.89e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)

Water	1.07e-002	9.55e-001
Carbon Dioxide	8.93e-001	1.96e+002
Nitrogen	2.03e+000	2.83e+002
Methane	9.05e+001	7.22e+003
Ethane	1.72e+000	2.58e+002
Propane	2.27e+000	4.97e+002
Isobutane	6.94e-001	2.01e+002
n-Butane	9.70e-001	2.81e+002
Isopentane	3.30e-001	1.19e+002
n-Pentane	2.60e-001	9.34e+001
Cyclopentane	3.15e-002	1.10e+001
n-Hexane	4.48e-002	1.92e+001
Cyclohexane	4.09e-002	1.71e+001
Other Hexanes	1.15e-001	4.91e+001
Heptanes	4.16e-002	2.08e+001
Methylcyclohexane	2.63e-002	1.28e+001
2,2,4-Trimethylpentane	2.99e-003	1.70e+000
Benzene	4.11e-003	1.60e+000
Toluene	2.32e-003	1.06e+000
Xylenes	1.34e-003	7.08e-001
C8+ Heavies	2.52e-002	2.14e+001
Total Components	100.00	9.30e+003

LEAN GLYCOL STREAM

Temperature: 130.00 deg. F
Flow Rate: 2.20e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.90e+001	1.23e+003
Water	1.00e+000	1.24e+001
Carbon Dioxide	9.80e-012	1.21e-010
Nitrogen	1.57e-012	1.95e-011
Methane	1.19e-017	1.47e-016
Ethane	1.65e-008	2.05e-007
Propane	3.72e-009	4.60e-008
Isobutane	1.38e-009	1.71e-008
n-Butane	2.01e-009	2.49e-008
Isopentane	1.57e-004	1.95e-003
n-Pentane	1.56e-004	1.93e-003
Cyclopentane	8.11e-005	1.01e-003
n-Hexane	4.69e-005	5.81e-004
Cyclohexane	1.26e-003	1.56e-002
Other Hexanes	1.92e-004	2.38e-003
Heptanes	8.27e-005	1.03e-003
Methylcyclohexane	1.18e-003	1.46e-002
2,2,4-Trimethylpentane	9.01e-006	1.12e-004
Benzene	1.47e-003	1.82e-002
Toluene	2.15e-003	2.67e-002
Xylenes	4.13e-003	5.11e-002
C8+ Heavies	7.45e-003	9.23e-002
Total Components	100.00	1.24e+003

RICH GLYCOL STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 2.27e+000 gpm
NOTE: Stream has more than one phase.

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.63e+001	1.23e+003
Water	2.71e+000	3.45e+001
Carbon Dioxide	9.54e-002	1.22e+000
Nitrogen	1.54e-002	1.96e-001
Methane	3.44e-001	4.38e+000
Ethane	3.41e-002	4.34e-001
Propane	8.89e-002	1.13e+000
Isobutane	4.48e-002	5.71e-001
n-Butane	7.87e-002	1.00e+000
Isopentane	3.06e-002	3.90e-001
n-Pentane	3.03e-002	3.86e-001
Cyclopentane	1.58e-002	2.01e-001
n-Hexane	9.13e-003	1.16e-001
Cyclohexane	3.83e-002	4.88e-001
Other Hexanes	1.87e-002	2.38e-001
Heptanes	1.61e-002	2.05e-001
Methylcyclohexane	2.86e-002	3.65e-001
2,2,4-Trimethylpentane	5.84e-004	7.44e-003
Benzene	2.86e-002	3.64e-001
Toluene	2.66e-002	3.39e-001
Xylenes	3.14e-002	4.00e-001
C8+ Heavies	6.07e-002	7.73e-001
Total Components	100.00	1.27e+003

FLASH TANK OFF GAS STREAM

Temperature: 100.00 deg. F
Pressure: 54.70 psia
Flow Rate: 1.27e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	1.07e-001	6.50e-003
Carbon Dioxide	4.86e+000	7.18e-001
Nitrogen	1.99e+000	1.88e-001
Methane	7.75e+001	4.18e+000
Ethane	3.62e+000	3.65e-001
Propane	5.36e+000	7.94e-001
Isobutane	1.72e+000	3.36e-001
n-Butane	2.64e+000	5.15e-001
Isopentane	7.45e-001	1.81e-001
n-Pentane	6.38e-001	1.55e-001
Cyclopentane	1.22e-001	2.87e-002
n-Hexane	1.02e-001	2.95e-002
Cyclohexane	1.29e-001	3.64e-002
Other Hexanes	2.57e-001	7.46e-002
Heptanes	7.99e-002	2.69e-002
Methylcyclohexane	6.09e-002	2.01e-002
2,2,4-Trimethylpentane	4.58e-003	1.76e-003
Benzene	1.34e-002	3.52e-003

Toluene	6.06e-003	1.88e-003
Xylenes	2.12e-003	7.57e-004
C8+ Heavies	1.58e-002	9.05e-003
Total Components	100.00	7.67e+000

FLASH TANK GLYCOL STREAM

Temperature: 100.00 deg. F
Flow Rate: 2.25e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.68e+001	1.23e+003
Water	2.72e+000	3.45e+001
Carbon Dioxide	3.93e-002	4.97e-001
Nitrogen	6.79e-004	8.59e-003
Methane	1.56e-002	1.98e-001
Ethane	5.42e-003	6.87e-002
Propane	2.67e-002	3.38e-001
Isobutane	1.85e-002	2.35e-001
n-Butane	3.85e-002	4.87e-001
Isopentane	1.66e-002	2.10e-001
n-Pentane	1.83e-002	2.31e-001
Cyclopentane	1.36e-002	1.72e-001
n-Hexane	6.86e-003	8.68e-002
Cyclohexane	3.57e-002	4.52e-001
Other Hexanes	1.29e-002	1.63e-001
Heptanes	1.41e-002	1.78e-001
Methylcyclohexane	2.72e-002	3.45e-001
2,2,4-Trimethylpentane	4.49e-004	5.68e-003
Benzene	2.85e-002	3.60e-001
Toluene	2.66e-002	3.37e-001
Xylenes	3.16e-002	4.00e-001
C8+ Heavies	6.04e-002	7.64e-001
Total Components	100.00	1.27e+003

REGENERATOR OVERHEADS STREAM

Temperature: 212.00 deg. F
Pressure: 14.70 psia
Flow Rate: 7.97e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	5.84e+001	2.21e+001
Carbon Dioxide	8.74e-001	8.08e-001
Nitrogen	7.79e-001	4.58e-001
Methane	3.46e+001	1.17e+001
Ethane	7.57e-001	4.78e-001
Propane	1.22e+000	1.13e+000
Isobutane	4.53e-001	5.53e-001
n-Butane	7.64e-001	9.33e-001
Isopentane	2.61e-001	3.96e-001
n-Pentane	2.49e-001	3.78e-001
Cyclopentane	1.28e-001	1.89e-001

n-Hexane	6.45e-002	1.17e-001
Cyclohexane	2.62e-001	4.64e-001
Other Hexanes	1.32e-001	2.39e-001
Heptanes	9.99e-002	2.10e-001
Methylcyclohexane	1.70e-001	3.50e-001
2,2,4-Trimethylpentane	3.45e-003	8.27e-003
Benzene	2.10e-001	3.45e-001
Toluene	1.61e-001	3.12e-001
Xylenes	1.57e-001	3.50e-001
C8+ Heavies	1.97e-001	7.06e-001
Total Components	100.00	4.22e+001

GRI-GLYCalc VERSION 4.0 - AGGREGATE CALCULATIONS REPORT

Case Name: Monopod Platform
File Name: \\192.168.240.11\Projects\Hilcorp Alaska\Air Quality\Title V Permits\Monopod\TVP04\D Forms\MONOPOD 2023 DEHYDRATOR ACTUAL OPERATION.DDF
Date: January 10, 2024

DESCRIPTION:

Description: Based on full gas composition analyzed on 3/6/2000 and actual operation.

Annual Hours of Operation: 7390.0 hours/yr

EMISSIONS REPORTS:

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	11.6734	280.162	43.1333
Ethane	0.4779	11.470	1.7659
Propane	1.1288	27.092	4.1710
Isobutane	0.5533	13.280	2.0445
n-Butane	0.9332	22.397	3.4483
Isopentane	0.3961	9.507	1.4637
n-Pentane	0.3777	9.066	1.3958
Cyclopentane	0.1889	4.534	0.6981
n-Hexane	0.1168	2.802	0.4314
Cyclohexane	0.4636	11.126	1.7130
Other Hexanes	0.2387	5.729	0.8820
Heptanes	0.2102	5.045	0.7768
Methylcyclohexane	0.3504	8.410	1.2948
2,2,4-Trimethylpentane	0.0083	0.198	0.0306
Benzene	0.3447	8.273	1.2737
Toluene	0.3120	7.488	1.1528
Xylenes	0.3496	8.390	1.2917
C8+ Heavies	0.7060	16.943	2.6086
Total Emissions	18.8297	451.914	69.5759
Total Hydrocarbon Emissions	18.8297	451.914	69.5759
Total VOC Emissions	6.6784	160.281	24.6766
Total HAP Emissions	1.1313	27.152	4.1802
Total BTEX Emissions	1.0063	24.151	3.7182

FLASH GAS EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.2089	5.014	0.7719
Ethane	0.0183	0.438	0.0675
Propane	0.0397	0.953	0.1467
Isobutane	0.0168	0.403	0.0621
n-Butane	0.0258	0.618	0.0952
Isopentane	0.0090	0.217	0.0334
n-Pentane	0.0077	0.186	0.0286
Cyclopentane	0.0014	0.034	0.0053
n-Hexane	0.0015	0.035	0.0054

Cyclohexane	0.0018	0.044	0.0067
Other Hexanes	0.0037	0.089	0.0138
Heptanes	0.0013	0.032	0.0050
Methylcyclohexane	0.0010	0.024	0.0037
2,2,4-Trimethylpentane	0.0001	0.002	0.0003
Benzene	0.0002	0.004	0.0007
Toluene	0.0001	0.002	0.0003
Xylenes	<0.0001	0.001	0.0001
C8+ Heavies	0.0005	0.011	0.0017
Total Emissions	0.3379	8.109	1.2484
Total Hydrocarbon Emissions	0.3379	8.109	1.2484
Total VOC Emissions	0.1107	2.656	0.4089
Total HAP Emissions	0.0019	0.045	0.0069
Total BTEX Emissions	0.0003	0.007	0.0011

FLASH TANK OFF GAS

Component	lbs/hr	lbs/day	tons/yr
Methane	4.1782	100.278	15.4386
Ethane	0.3653	8.768	1.3499
Propane	0.7939	19.055	2.9336
Isobutane	0.3361	8.066	1.2418
n-Butane	0.5153	12.367	1.9041
Isopentane	0.1806	4.335	0.6674
n-Pentane	0.1546	3.710	0.5712
Cyclopentane	0.0287	0.688	0.1059
n-Hexane	0.0295	0.707	0.1089
Cyclohexane	0.0364	0.873	0.1344
Other Hexanes	0.0746	1.789	0.2755
Heptanes	0.0269	0.646	0.0994
Methylcyclohexane	0.0201	0.482	0.0742
2,2,4-Trimethylpentane	0.0018	0.042	0.0065
Benzene	0.0035	0.085	0.0130
Toluene	0.0019	0.045	0.0069
Xylenes	0.0008	0.018	0.0028
C8+ Heavies	0.0090	0.217	0.0334
Total Emissions	6.7571	162.170	24.9675
Total Hydrocarbon Emissions	6.7571	162.170	24.9675
Total VOC Emissions	2.2135	53.125	8.1790
Total HAP Emissions	0.0374	0.897	0.1382
Total BTEX Emissions	0.0062	0.148	0.0227

COMBINED REGENERATOR VENT/FLASH GAS EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	11.8823	285.176	43.9052
Ethane	0.4962	11.909	1.8334
Propane	1.1685	28.044	4.3176
Isobutane	0.5701	13.683	2.1066
n-Butane	0.9590	23.016	3.5435
Isopentane	0.4052	9.724	1.4970
n-Pentane	0.3855	9.251	1.4243
Cyclopentane	0.1904	4.569	0.7034
n-Hexane	0.1182	2.838	0.4369

Cyclohexane	0.4654	11.170	1.7197
Other Hexanes	0.2424	5.818	0.8958
Heptanes	0.2116	5.078	0.7817
Methylcyclohexane	0.3514	8.434	1.2985
2,2,4-Trimethylpentane	0.0084	0.201	0.0309
Benzene	0.3449	8.277	1.2744
Toluene	0.3121	7.490	1.1531
Xylenes	0.3496	8.391	1.2919
C8+ Heavies	0.7064	16.954	2.6102
Total Emissions	19.1676	460.022	70.8243
Total Hydrocarbon Emissions	19.1676	460.022	70.8243
Total VOC Emissions	6.7891	162.938	25.0856
Total HAP Emissions	1.1332	27.197	4.1871
Total BTEX Emissions	1.0066	24.158	3.7194

COMBINED REGENERATOR VENT/FLASH GAS EMISSION CONTROL REPORT:

Component	Uncontrolled tons/yr	Controlled tons/yr	% Reduction
Methane	58.5719	43.9052	25.04
Ethane	3.1159	1.8334	41.16
Propane	7.1046	4.3176	39.23
Isobutane	3.2863	2.1066	35.90
n-Butane	5.3523	3.5435	33.80
Isopentane	2.1311	1.4970	29.75
n-Pentane	1.9670	1.4243	27.59
Cyclopentane	0.8040	0.7034	12.51
n-Hexane	0.5403	0.4369	19.15
Cyclohexane	1.8474	1.7197	6.91
Other Hexanes	1.1575	0.8958	22.61
Heptanes	0.8761	0.7817	10.78
Methylcyclohexane	1.3690	1.2985	5.15
2,2,4-Trimethylpentane	0.0371	0.0309	16.66
Benzene	1.2867	1.2744	0.96
Toluene	1.1597	1.1531	0.57
Xylenes	1.2945	1.2919	0.21
C8+ Heavies	2.6420	2.6102	1.20
Total Emissions	94.5434	70.8243	25.09
Total Hydrocarbon Emissions	94.5434	70.8243	25.09
Total VOC Emissions	32.8556	25.0856	23.65
Total HAP Emissions	4.3184	4.1871	3.04
Total BTEX Emissions	3.7410	3.7194	0.58

EQUIPMENT REPORTS:

ABSORBER

NOTE: Because the Calculated Absorber Stages was below the minimum

allowed, GRI-GLYCalc has set the number of Absorber Stages to 1.25 and has calculated a revised Dry Gas Dew Point.

Calculated Absorber Stages:	1.25	
Calculated Dry Gas Dew Point:	5.06	lbs. H2O/MMSCF
Temperature:	130.0	deg. F
Pressure:	1120.0	psig
Dry Gas Flow Rate:	4.5300	MMSCF/day
Glycol Losses with Dry Gas:	0.3126	lb/hr
Wet Gas Water Content:	Saturated	
Calculated Wet Gas Water Content:	121.76	lbs. H2O/MMSCF
Calculated Lean Glycol Recirc. Ratio:	5.99	gal/lb H2O

Component	Remaining in Dry Gas	Absorbed in Glycol
Water	4.14%	95.86%
Carbon Dioxide	99.38%	0.62%
Nitrogen	99.93%	0.07%
Methane	99.94%	0.06%
Ethane	99.83%	0.17%
Propane	99.77%	0.23%
Isobutane	99.72%	0.28%
n-Butane	99.64%	0.36%
Isopentane	99.67%	0.33%
n-Pentane	99.59%	0.41%
Cyclopentane	98.21%	1.79%
n-Hexane	99.40%	0.60%
Cyclohexane	97.31%	2.69%
Other Hexanes	99.52%	0.48%
Heptanes	99.03%	0.97%
Methylcyclohexane	97.35%	2.65%
2,2,4-Trimethylpentane	99.57%	0.43%
Benzene	82.22%	17.78%
Toluene	77.32%	22.68%
Xylenes	67.01%	32.99%
C8+ Heavies	96.91%	3.09%

FLASH TANK

Flash Control:	Combustion device	
Flash Control Efficiency:	95.00	%
Flash Temperature:	100.0	deg. F
Flash Pressure:	40.0	psig

Component	Left in Glycol	Removed in Flash Gas
Water	99.98%	0.02%
Carbon Dioxide	40.92%	59.08%
Nitrogen	4.38%	95.62%
Methane	4.52%	95.48%
Ethane	15.82%	84.18%
Propane	29.87%	70.13%
Isobutane	41.11%	58.89%
n-Butane	48.61%	51.39%
Isopentane	53.73%	46.27%
n-Pentane	59.94%	40.06%
Cyclopentane	85.76%	14.24%
n-Hexane	74.66%	25.34%

Cyclohexane	92.55%	7.45%
Other Hexanes	68.62%	31.38%
Heptanes	86.89%	13.11%
Methylcyclohexane	94.49%	5.51%
2,2,4-Trimethylpentane	76.37%	23.63%
Benzene	99.03%	0.97%
Toluene	99.45%	0.55%
Xylenes	99.81%	0.19%
C8+ Heavies	98.83%	1.17%

REGENERATOR

Regenerator Stripping Gas:
Dry Product Gas
Stripping Gas Flow Rate: 5.0000 scfm

Component	Remaining in Glycol	Distilled Overhead
Water	35.93%	64.07%
Carbon Dioxide	0.00%	100.00%
Nitrogen	0.00%	100.00%
Methane	0.00%	100.00%
Ethane	0.00%	100.00%
Propane	0.00%	100.00%
Isobutane	0.00%	100.00%
n-Butane	0.00%	100.00%
Isopentane	0.93%	99.07%
n-Pentane	0.83%	99.17%
Cyclopentane	0.58%	99.42%
n-Hexane	0.67%	99.33%
Cyclohexane	3.46%	96.54%
Other Hexanes	1.46%	98.54%
Heptanes	0.58%	99.42%
Methylcyclohexane	4.24%	95.76%
2,2,4-Trimethylpentane	1.96%	98.04%
Benzene	5.04%	94.96%
Toluene	7.92%	92.08%
Xylenes	12.80%	87.20%
C8+ Heavies	12.08%	87.92%

STREAM REPORTS:

WET GAS STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 1.89e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	2.57e-001	2.31e+001
Carbon Dioxide	8.96e-001	1.97e+002
Nitrogen	2.02e+000	2.83e+002

Methane	9.02e+001	7.23e+003
Ethane	1.72e+000	2.58e+002
Propane	2.27e+000	4.99e+002
Isobutane	6.93e-001	2.01e+002
n-Butane	9.71e-001	2.82e+002
Isopentane	3.30e-001	1.19e+002
n-Pentane	2.60e-001	9.38e+001
Cyclopentane	3.19e-002	1.12e+001
n-Hexane	4.49e-002	1.93e+001
Cyclohexane	4.19e-002	1.76e+001
Other Hexanes	1.15e-001	4.93e+001
Heptanes	4.19e-002	2.10e+001
Methylcyclohexane	2.69e-002	1.32e+001
2,2,4-Trimethylpentane	2.99e-003	1.71e+000
Benzene	4.99e-003	1.94e+000
Toluene	2.99e-003	1.38e+000
Xylenes	1.99e-003	1.06e+000
C8+ Heavies	2.59e-002	2.20e+001
Total Components	100.00	9.34e+003

DRY GAS STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 1.89e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	1.07e-002	9.55e-001
Carbon Dioxide	8.93e-001	1.96e+002
Nitrogen	2.03e+000	2.83e+002
Methane	9.05e+001	7.22e+003
Ethane	1.72e+000	2.58e+002
Propane	2.27e+000	4.97e+002
Isobutane	6.94e-001	2.01e+002
n-Butane	9.70e-001	2.81e+002
Isopentane	3.30e-001	1.19e+002
n-Pentane	2.60e-001	9.34e+001
Cyclopentane	3.15e-002	1.10e+001
n-Hexane	4.48e-002	1.92e+001
Cyclohexane	4.09e-002	1.71e+001
Other Hexanes	1.15e-001	4.91e+001
Heptanes	4.16e-002	2.08e+001
Methylcyclohexane	2.63e-002	1.28e+001
2,2,4-Trimethylpentane	2.99e-003	1.70e+000
Benzene	4.11e-003	1.60e+000
Toluene	2.32e-003	1.06e+000
Xylenes	1.34e-003	7.08e-001
C8+ Heavies	2.52e-002	2.14e+001
Total Components	100.00	9.30e+003

LEAN GLYCOL STREAM

Temperature: 130.00 deg. F
Flow Rate: 2.20e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.90e+001	1.23e+003
Water	1.00e+000	1.24e+001
Carbon Dioxide	9.80e-012	1.21e-010
Nitrogen	1.57e-012	1.95e-011
Methane	1.19e-017	1.47e-016
Ethane	1.65e-008	2.05e-007
Propane	3.72e-009	4.60e-008
Isobutane	1.38e-009	1.71e-008
n-Butane	2.01e-009	2.49e-008
Isopentane	1.57e-004	1.95e-003
n-Pentane	1.56e-004	1.93e-003
Cyclopentane	8.11e-005	1.01e-003
n-Hexane	4.69e-005	5.81e-004
Cyclohexane	1.26e-003	1.56e-002
Other Hexanes	1.92e-004	2.38e-003
Heptanes	8.27e-005	1.03e-003
Methylcyclohexane	1.18e-003	1.46e-002
2,2,4-Trimethylpentane	9.01e-006	1.12e-004
Benzene	1.47e-003	1.82e-002
Toluene	2.15e-003	2.67e-002
Xylenes	4.13e-003	5.11e-002
C8+ Heavies	7.45e-003	9.23e-002
Total Components	100.00	1.24e+003

RICH GLYCOL STREAM

Temperature: 130.00 deg. F
Pressure: 1134.70 psia
Flow Rate: 2.27e+000 gpm
NOTE: Stream has more than one phase.

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.63e+001	1.23e+003
Water	2.71e+000	3.45e+001
Carbon Dioxide	9.54e-002	1.22e+000
Nitrogen	1.54e-002	1.96e-001
Methane	3.44e-001	4.38e+000
Ethane	3.41e-002	4.34e-001
Propane	8.89e-002	1.13e+000
Isobutane	4.48e-002	5.71e-001
n-Butane	7.87e-002	1.00e+000
Isopentane	3.06e-002	3.90e-001
n-Pentane	3.03e-002	3.86e-001
Cyclopentane	1.58e-002	2.01e-001
n-Hexane	9.13e-003	1.16e-001
Cyclohexane	3.83e-002	4.88e-001
Other Hexanes	1.87e-002	2.38e-001
Heptanes	1.61e-002	2.05e-001
Methylcyclohexane	2.86e-002	3.65e-001
2,2,4-Trimethylpentane	5.84e-004	7.44e-003
Benzene	2.86e-002	3.64e-001
Toluene	2.66e-002	3.39e-001
Xylenes	3.14e-002	4.00e-001

Component	Conc. (vol%)	Loading (lb/hr)
C8+ Heavies	6.07e-002	7.73e-001
Total Components	100.00	1.27e+003

FLASH TANK OFF GAS STREAM

Temperature: 100.00 deg. F
Pressure: 54.70 psia
Flow Rate: 1.27e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	1.07e-001	6.50e-003
Carbon Dioxide	4.86e+000	7.18e-001
Nitrogen	1.99e+000	1.88e-001
Methane	7.75e+001	4.18e+000
Ethane	3.62e+000	3.65e-001
Propane	5.36e+000	7.94e-001
Isobutane	1.72e+000	3.36e-001
n-Butane	2.64e+000	5.15e-001
Isopentane	7.45e-001	1.81e-001
n-Pentane	6.38e-001	1.55e-001
Cyclopentane	1.22e-001	2.87e-002
n-Hexane	1.02e-001	2.95e-002
Cyclohexane	1.29e-001	3.64e-002
Other Hexanes	2.57e-001	7.46e-002
Heptanes	7.99e-002	2.69e-002
Methylcyclohexane	6.09e-002	2.01e-002
2,2,4-Trimethylpentane	4.58e-003	1.76e-003
Benzene	1.34e-002	3.52e-003
Toluene	6.06e-003	1.88e-003
Xylenes	2.12e-003	7.57e-004
C8+ Heavies	1.58e-002	9.05e-003
Total Components	100.00	7.67e+000

FLASH TANK GLYCOL STREAM

Temperature: 100.00 deg. F
Flow Rate: 2.25e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.68e+001	1.23e+003
Water	2.72e+000	3.45e+001
Carbon Dioxide	3.93e-002	4.97e-001
Nitrogen	6.79e-004	8.59e-003
Methane	1.56e-002	1.98e-001
Ethane	5.42e-003	6.87e-002
Propane	2.67e-002	3.38e-001
Isobutane	1.85e-002	2.35e-001
n-Butane	3.85e-002	4.87e-001
Isopentane	1.66e-002	2.10e-001
n-Pentane	1.83e-002	2.31e-001
Cyclopentane	1.36e-002	1.72e-001
n-Hexane	6.86e-003	8.68e-002
Cyclohexane	3.57e-002	4.52e-001
Other Hexanes	1.29e-002	1.63e-001

Heptanes	1.41e-002	1.78e-001
Methylcyclohexane	2.72e-002	3.45e-001
2,2,4-Trimethylpentane	4.49e-004	5.68e-003
Benzene	2.85e-002	3.60e-001
Toluene	2.66e-002	3.37e-001
Xylenes	3.16e-002	4.00e-001
C8+ Heavies	6.04e-002	7.64e-001
Total Components	100.00	1.27e+003

FLASH GAS EMISSIONS

Flow Rate: 4.42e+002 scfh
Control Method: Combustion Device
Control Efficiency: 95.00

Component	Conc. (vol%)	Loading (lb/hr)
Water	6.10e+001	1.28e+001
Carbon Dioxide	3.70e+001	1.90e+001
Nitrogen	5.75e-001	1.88e-001
Methane	1.12e+000	2.09e-001
Ethane	5.21e-002	1.83e-002
Propane	7.73e-002	3.97e-002
Isobutane	2.48e-002	1.68e-002
n-Butane	3.81e-002	2.58e-002
Isopentane	1.07e-002	9.03e-003
n-Pentane	9.19e-003	7.73e-003
Cyclopentane	1.75e-003	1.43e-003
n-Hexane	1.47e-003	1.47e-003
Cyclohexane	1.85e-003	1.82e-003
Other Hexanes	3.71e-003	3.73e-003
Heptanes	1.15e-003	1.34e-003
Methylcyclohexane	8.78e-004	1.00e-003
2,2,4-Trimethylpentane	6.61e-005	8.79e-005
Benzene	1.94e-004	1.76e-004
Toluene	8.74e-005	9.38e-005
Xylenes	3.06e-005	3.79e-005
C8+ Heavies	2.28e-004	4.52e-004
Total Components	100.00	3.23e+001

REGENERATOR OVERHEADS STREAM

Temperature: 212.00 deg. F
Pressure: 14.70 psia
Flow Rate: 7.97e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	5.84e+001	2.21e+001
Carbon Dioxide	8.74e-001	8.08e-001
Nitrogen	7.79e-001	4.58e-001
Methane	3.46e+001	1.17e+001
Ethane	7.57e-001	4.78e-001
Propane	1.22e+000	1.13e+000
Isobutane	4.53e-001	5.53e-001

n-Butane	7.64e-001	9.33e-001
Isopentane	2.61e-001	3.96e-001
n-Pentane	2.49e-001	3.78e-001
Cyclopentane	1.28e-001	1.89e-001
n-Hexane	6.45e-002	1.17e-001
Cyclohexane	2.62e-001	4.64e-001
Other Hexanes	1.32e-001	2.39e-001
Heptanes	9.99e-002	2.10e-001
Methylcyclohexane	1.70e-001	3.50e-001
2,2,4-Trimethylpentane	3.45e-003	8.27e-003
Benzene	2.10e-001	3.45e-001
Toluene	1.61e-001	3.12e-001
Xylenes	1.57e-001	3.50e-001
C8+ Heavies	1.97e-001	7.06e-001
Total Components	100.00	4.22e+001

Section E

Regulatory Requirements

Form E1:	Stationary Source-Wide Applicable Requirements
Form E3:	Title V Condition Change Request
Form E4:	Permit Shield Request

FORM E1

Stationary Source - Wide Applicable Requirements

Permit Number: AQ0067TVP03

Stationary Source-Wide Applicable Requirements (attach additional sheets as needed):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 – Condition 20.1	18 AAC 50.050(a) & 50.055(a)(1)	Insignificant Emission Units: VE Standard	Do not cause or allow visible emissions to reduce visibility by more than 20 percent averaged over any six consecutive minutes	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.2	18 AAC 50.055(b)(1)	Insignificant Emission Units: PM Standard	Do not cause or allow particulate matter to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.3	18 AAC 50.055(c)	Insignificant Emission Units: Sulfur Standard	Do not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 20.4	18 AAC 50.346(b)(4)	Insignificant Emission Units	Monitor actual emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 – Condition 21	40 CFR 60.7(a) & 60.15(d), Subpart A	NSPS Subpart A Notification	For an affected or existing facility regulated under NSPS requirements in 40 CFR 60, furnish to the Department and EPA a written or electronic notification of the information listed in Conditions 21.1 through 21.4.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 35	40 CFR 61 Subparts A & M, & Appendix A	Asbestos NESHAP	Comply with the requirements set forth in 40 CFR 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 CFR 61, Subpart A and Appendix A.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 36.1	40 CFR 82 Subpart F	Refrigerant Recycling and Disposal	Comply with the requirements in 40 CFR 82, Subpart F.	Yes.	Annual Compliance Audit.

FORM E1

Stationary Source - Wide Applicable Requirements

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 - Condition 36.2	40 CFR 82.174(b) through (d), Subpart G	Significant New Alternatives Policy	Comply with the prohibitions set out in 40 CFR 82.174.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 36.3	40 CFR 82.270(b) through (f), Subpart H	Halon Emissions Reduction	Comply with the prohibitions set out in 40 CFR 82.270.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 37	40 CFR 63.1(b), 63.5(b)(4), 63.6(c)(1), & 63.10(b)(3)	NESHAPs Applicability Determinations	Determine applicability under NESHAPs in accordance with 40 CFR 63.1(b) and 63.10(b)(3). Comply with the NESHAP standards.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 38	40 CFR 60.13, 63.10(d) & (f), & 71.6(c)(6)	NSPS and NESHAP Reports	Submit to the Department a copy of any NSPS and NESHAP report submitted to the U.S. EPA. Keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 39	18 AAC 50.345(a) & (e)	Standard Terms and Conditions	Each permit term and condition is independent and remains valid regardless of a challenge to any other part of the permit.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 40	18 AAC 50.345 (a) & (f)	Standard Terms and Conditions	Requested permit changes do not stay any permit condition.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 41	18 AAC 50.345 (a) & (g)	Standard Terms and Conditions	The permit does not convey any property rights of any sort.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 42	18 AAC 50.326(j), 50.400 & 50.403	Administration Fees	Pay all assessed permit administration fees.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 43	18 AAC 50.410 & 50.420	Assessable Emissions	Pay the Department an annual emission fee based on the assessable emissions of the source.	Yes.	Annual Compliance Audit.

FORM E1

Stationary Source - Wide Applicable Requirements

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 - Condition 44	18 AAC 50.410 & 50.420	Assessable Emission Estimate	Calculate assessable emissions and submit them to the Department by March 31 or plan to pay fees based on the potential emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 46	18 AAC 50.045(a)	Dilution	Do not dilute emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 47	18 AAC 50.045(d)	Reasonable Precautions to Prevent Fugitive Dust	Take reasonable precautions to prevent particulate matter from being emitted into the ambient air.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 48	18 AAC 50.055(g)	Stack Injection	Do not release materials other than process emissions, products of combustion or materials introduced to control pollutant emissions from a stack.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 49	18 AAC 50.110	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 interferes with the enjoyment of life or property.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 50	18 AAC 50.235(a)	Technology-Based Emission Standard	During an unavoidable emergency, malfunction, or non-routine repair, take reasonable steps to minimize emissions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 51	18 AAC 50.065	Open Burning	Do not conduct open burning.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 52	18 AAC 50.220(a)	Requested Source Tests	Conduct source testing as requested by the Department.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 53	18 AAC 50.220(b)	Operating Conditions	Conduct source testing at points that characterize the discharged into ambient air; and at maximum rated burning or operating capacity.	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 - Condition 54	18 AAC 50.220(c)(1)(A) – (F) & (c)(2)	Reference Test Methods	Use the listed test methods when conducting source testing for compliance with the permit.	Yes.	Comply with the test methods listed in Conditions 54.1 through 54.7.
AQ0067TVP03 - Condition 55	18 AAC 50.220(c)(3)	Excess Air Requirements	During source tests, 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 emission unit type, corrected to standard conditions.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 56	18 AAC 50.345(a)	Test Exemption	When the exhaust is observed for visible emissions by Method 9 Plan, it is not required to comply with Conditions 58, 59, and 60.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 57	18 AAC 50.345(a) & (l)	Test Deadline Extension	An extension to a source test deadline established by the Department may be requested.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 58	18 AAC 50.345(a) & (m)	Test Plans	Submit a plan to the Department before conducting any source tests.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 59	18 AAC 50.345(a) & (n)	Test Notification	Give the Department written notice of the date and the time the source test will begin at least 10 days before conducting a source test.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 60	18 AAC 50.345(a) & (o)	Test Reports	Submit one certified copy of the results to the Department within 60 days after completing a source test.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 61	18 AAC 50.220(f)	Particulate Matter Calculations	The three-hour average is determined using the average of three one-hour test runs.	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 - Condition 62	40 CFR 60.7(f), 40 CFR 71.6(a)(3)(ii)(B)	Recordkeeping Requirements	Keep all records for at least five years.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 63	18 AAC 50.345(j), 50.205, 40 CFR 71.6(a)(3)(iii)(A)	Certification	Certify all reports, compliance certifications or other documents.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 64	40 CFR 71.6(a)(3)(iii)(A)	Submittals	Send reports, compliance certifications and other submittals required by the permit to the Department.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 65	18 AAC 50.345(i), 50.200, 40 CFR 71.5(a)(2) & 71.6(a)(3)	Information Requests	Furnish to the Department any information requested in writing to determine compliance with the permit.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 66	18 AAC 50.235(a)(2), 50.240(c), 50.346(b)(2) & (3)	Excess Emissions and Permit Deviation Reports	Report all emissions or operations that exceed or deviate from the permit.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 67	18 AAC 50.346(b)(6), 40 CFR 71.6(a)(3)(iii)(A)	Operating Reports	Submit operating reports 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.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 68	40 CFR 71.6(c)(5)	Annual Compliance Certification	Compile and submit to the Department an annual compliance certification report.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 69	18 AAC 50.346(b)(8), 40 CFR 51.15, 51.30(a)(1) & (b)(1)	Emission Inventory Reporting	Submit to the Department reports of actual emissions, by emission unit using the form in Section 14 of the permit.	Yes.	Annual Compliance Audit.

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0067TVP03 - Condition 70	40 CFR 71.10(d)(1)	Permit Applications and Submittals	Submit permit modifications and renewals to the Department and U.S. EPA.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 71	40 CFR 71.6(a)(8)	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.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 72	40 CFR 71.6(a)(12)	Off Permit Changes	Changes that are not addressed or prohibited by this permit may be made.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 73	40 CFR 71.6(a)(13)	Operational Flexibility	Changes that are not modifications under Title I and do not exceed the allowable emissions may be made.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 74	18 AAC 50.326(c)(2) & (j)(2), 40 CFR 71.5(a)(1)(iii), 71.7(b) & (c)(1)(ii)	Permit Renewal	Submit a permit renewal application no sooner than February 5, 2023 and no later than February 5, 2024.	Yes.	Annual Compliance Audit.
AQ0067TVP03 - Condition 74 through 79	18 AAC 50.345(a)-(d), (h), 40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(B)	General Compliance Requirements	Comply with each permit term and condition and allow the Department access to the facility.	Yes.	Annual Compliance Audit.

[1]Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

FORM E3

Title V Condition Change Request

Permit Number: AQ0067TVP03

Title V Permit Information (attach additional sheets as needed):

Current Title V Operating Permit Condition Number	Type of Change (revise or remove)	Reason for Change	Requested Alaska Title V Operating Permit Condition[1]
AQ0067TVP03 –All Standard Conditions	Revise	Revise all Standard Conditions throughout the permit with the updated July 22, 2020 Standard Conditions.	Revise all Standard Conditions throughout the permit with the updated July 22, 2020 Standard Conditions.
AQ0067TVP03 – Section 1, Identification Table	Revise	The Permitee's Responsible Official has been changed.	Revise the Permitee's Responsible Official to: Luke Saugier, Senior Vice President Trudi Hallett, Asset Team Lead Chris Kanyer, Asset Team Lead Anthony McConkey, Asset Team Lead Bradley Simpson, Asset Team Lead
AQ0067TVP03 – Section 1, Identification Table	Revise	The Stationary Source and Building Contact has been changed.	Revise the Stationary Source and Building Contact to: Drew Anderson, P.E, Environmental Engineer (907) 777-8488 ananderson@hilcorp.com
AQ0067TVP03 – Section 1, Identification Table	Revise	The Permit Contact has been changed.	Revise the Permit Contact to: Drew Anderson, P.E, Environmental Engineer (907) 777-8488 ananderson@hilcorp.com

FORM E3

Title V Condition Change Request

Current Title V Operating Permit Condition Number	Type of Change (revise or remove)	Reason for Change	Requested Alaska Title V Operating Permit Condition[1]
AQ0067TVP03 – Condition 1 & Condition 6	Revise	EU ID 23a is insignificant based on potential emissions but is significant because it is subject to NSPS Subpart IIII.	Remove EU ID 23a from Condition 1.1 and Conditions 2 through 4. Add EU ID 23a to a new condition for visible emissions using Condition 1.4 of Standard Permit Condition IX. Remove EU ID 23a from Condition 6.1 and Conditions 7 through 9. Add EU ID 23a to a new condition for particulate matter using Condition 6.5 of Standard Permit Condition IX.
AQ0067TVP03 – Condition 1 & Condition 6	Revise	EU ID 21 is insignificant based on actual emissions but is significant because it is subject to NESHAP Subpart ZZZZ.	Add EU ID 21 to a new condition for visible emissions using Condition 1.3 of Standard Permit Condition IX. Add EU ID 21 to a new condition for particulate matter using Condition 6.4 of Standard Permit Condition IX. Remove EU ID 21 from Condition 20.
AQ0067TVP03 – Condition 17.1	Revise	EU ID 24 was removed from the facility in 2015.	Revise as follows: ~~"Remove EU ID 24 from service prior to EU ID 26 becoming fully operational.~~ Report in the first operating report required under Condition 67: ~~a. The date EU ID 24 was removed from service;~~ b. The installation date of EU ID 26; and c. The date EU ID 26 became fully operational."
AQ0067TVP03 – Footnote 5	Remove	EU ID 24 has been removed from the facility and should be removed from the permit.	Remove the entire footnote.
AQ0067TVP03 – Condition 43	Revise	Revise assessable potential emissions to match the current calculated potentials. See D forms.	Revise assessable potential emissions in Condition 43.1 to match the current calculated potentials. "the stationary source's assessable potential to emit of ~~671~~720 tpy…"

[1] Please remove language that is struck-out and add language that is underlined.

FORM E4

Permit Shield Request

Permit Number: AQ0067TVP03

Non-applicable requirements (attach additional sheets as needed):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 60 Subpart Dc	The insignificant Peerless Boiler (EU ID 22) is not an affected source because the maxium design capacity is less than 10 MMBtu/hr. There are no other potential affected sources at Monopod Platform.
40 CFR 60 Subpart K	Diesel Beam Tanks 1 through 4 and the Crude Oil Shipping Tank commenced construction prior to June 11, 1973. These tanks have not been modified or reconstructed per the definitions of the Subpart. All other tanks have a capacity of less than 40,000 gallons. Monopod Platform meets the definition of a drilling and production facility under §60.111(b). Per §60.110(b), this Subpart does not apply to tanks at drilling and production facilities.
40 CFR 60 Subpart Ka	Diesel Beam Tanks 1 through 4 and the Crude Oil Shipping Tank commenced construction prior to May 18, 1978. These tanks have not been modified or reconstructed per the definitions of the Subpart. All other tanks have a capacity of less than 40,000 gallons.
40 CFR 60 Subpart Kb	Diesel Beam Tanks 1 through 4 and the Crude Oil Shipping Tank commenced construction prior to July 23, 1984. These tanks have not been modified or reconstructed per the definitions of the Subpart. All other tanks have a capacity of less than 19,800 gallons.
40 CFR 60 Subparts OOOO and OOOOa	Subparts OOOO and OOOOa apply only to onshore affected facilities. Monopod Platform is on the outer continental shelf, so it is not an onshore facility as defined in 40 CFR 60.5430 and 40 CFR 60.5430a, respectively.
40 CFR 63 Subpart HHH	This stationary source is not a “major source” of HAPs as defined in 40 C.F.R. 63.1271. This permit shield only applies to the stationary source until it becomes a major source of HAP emissions.
40 CFR 63 Subpart JJJJJJ	The insignificant Peerless Boiler (EU ID 22) is a natural gas boiler and is not subject to the requirements per 40 CFR 63.11195(e). There are no other potential affected sources at Monopod Platform.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 CFR 60.332(a)(2).]

Attachment

Permits

Operating Permit No. AQ0067TVP03

Minor Permit No. AQ0067MSS01

Minor Permit No. AQ0067MSS02

Construction Permit No. AQ0067CPT01

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0067TVP03 Issue Date: Final - August 5, 2019
Expiration Date: August 5, 2024

The 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 **Monopod Platform**.

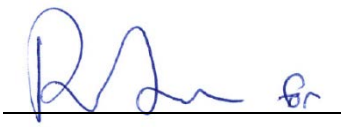
This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

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 18 AAC 50 dated September 15, 2018 Register 215. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

Upon effective date of this permit, Operating Permit AQ0067TVP02, including all revisions, expires.

This operating permit becomes effective September 4, 2019.



James R. Plosay, Manager
Air Permits Program

Table of Contents

List of Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....Best Available Control Technology
BHp .....Boiler Horsepower
C.F.R. .....Code of Federal Regulations
The Act .....Clean Air Act
CO .....Carbon Monoxide
dscf .....Dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....Emission Unit
gr./dscf .....grain per dry standard cubic foot (1 pound = 7000 grains)
GPH .....gallons per hour
HAPs .....Hazardous Air Pollutants [HAPs as defined in AS 46.14.990]
hp .....Horsepower
ID.....Emission Unit Identification Number
kPa .....kiloPascals
LAER.....Lowest Achievable Emission Rate
lb/hr .....pounds per hour
MACT .....Maximum Achievable Control Technology [MACT 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
NA .....Not applicable
NAICS.....North American Industry Classification System
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
NO_X .....Nitrogen Oxides
NSPS .....Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
O & M .....Operation and Maintenance
O_2 .....Oxygen
PAL .....Plantwide Applicability Limitation
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
SO_2 .....Sulfur dioxide
TPH .....Tons per hour
TPY .....Tons per year
VOC .....volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
VOL .....volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent

Section 1. Stationary Source Information

Identification

Permittee:		Hilcorp Alaska, LLC 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503
Stationary Source Name:		Monopod Platform
Location:		60º 53´ 49" North; 151º 34´ 45.5" West
Physical Address:		Upper Cook Inlet, AK
Owner/Operator		Hilcorp Alaska, LLC 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503
Permittee's Responsible Official:		David Wilkins, Senior Vice President 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503
Designated Agent:		CT Corporation System 9360 Glacier Highway, Suite 202 Juneau, AK 99801
Stationary Source and Building Contact:		Stan Golis, Cook Inlet Offshore Operations Manager 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503 (907) 777-8300 sgolis@hilcorp.com
Fee and Permit Contact:		Hilcorp Alaska, LLC Accounts Payable PO Box 61529 Houston, TX 77208
Process Description:	SIC Code	1311 - Crude Petroleum and Natural Gas
	NAICS Code:	211111 - Crude Petroleum and Natural Gas Extraction

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

Section 2. Emission Unit Inventory and Description

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

Table A - Emission Unit Inventory

EU ID	Tag Number	Emission Unit Name	Emission Unit Description	Fuel Type	Rating/ Size	Installation or Construction Date
1	M-PM-0230	Solar Centaur T-4500	Gas Compressor Set #1	Fuel Gas	4,400 hp	1995
2	M-PM-0280	Solar Centaur T-4500	Gas Compressor Set #2	Fuel Gas	4,400 hp	1996
3	M-PM-0520	Solar Saturn Turbine	AC Generator #1 Drive	Fuel Gas	750 kW	1969
4	M-PM-0370	Solar Saturn Turbine	Gas Lift Compressor	Fuel Gas	1,100 hp	1972
5	M-PM-0540	Solar Saturn Turbine	AC Generator #2 Drive	Fuel Gas	750 kW	1973
6	M-PM-1210	Solar Saturn Turbine	Waterflood Pump #1 Drive	Fuel Gas	1,100 hp	1970
7	M-PM-1220	Solar Saturn Turbine	Waterflood Pump #2 Drive	Fuel Gas	1,100 hp	1970
8a	M-PM-1600-1	MTU 12V4000G73	Drill Generator# 1	Diesel	1,105 kW	2011
9a	M-PM-1610-1	MTU 12V4000G73	Drill Generator# 2	Diesel	1,105 kW	2011
10a	M-PM-1620-1	MTU 12V4000G73	Drill Generator# 3	Diesel	1,105 kW	2011
13	M-CR-1780	Caterpillar 3406B-DITA engine	East Crane	Diesel	420 hp	1996
14	M-CR-1790	Detroit Diesel 671	West Crane	Diesel	230 hp	1997
15	M-B-1450	Weil-McLain Boiler 88	Boiler	Fuel Gas	4.763 MMBtu/hr	1992
16	M-SY-1570	Glycol Regenerator	Triethylene Glycol (TEG) Dehydration Unit	NA	10 MMscf/day	1966

EU ID	Tag Number	Emission Unit Name	Emission Unit Description	Fuel Type	Rating/ Size	Installation or Construction Date
17	M-SP-0610LP	Flare (LP)	NW Low Pressure Flare – NW	Fuel Gas	91.5 MMscf/yr	1966
18	M-SP-0610HP	Flare and Pilot (HP)	NW High Pressure Flare – NW	Fuel Gas		1966
19	M-SP-0630LP	Flare (LP)	NW Low Pressure Flare – South	Fuel Gas		1966
20	M-SP-0630HP	Flare and Pilot (HP)	NW High Pressure Flare – South	Fuel Gas		1966
21	M-PM-0900	Caterpillar Diesel Engine [1]	Fire Water Pump Drive	Diesel	85 hp	1971
23a	M-PM-1660-1	Detroit Diesel	Emergency Generator Drive #7	Diesel	685 hp	2013
26	Not Available	Solar Centaur 40	Generator Drive (SoLoNOx)	Fuel Gas	4,400 hp	2014 [2]

Table Notes:

[1] The emission unit is considered insignificant under 18 AAC 50.326(e). The emission unit is included in Table A because it is subject to the requirements of 40 C.F.R. 63 Subpart ZZZZ.

[2] Construction date. The emissions units has not been installed as of May 9, 2019.

[18 AAC 50.326(a)]
[40 C.F.R. 71.5(c)(3)]

Section 3. State Requirements

Visible Emissions Standards

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, monitor, record and report in accordance with Conditions 2 through 4.

1.2. For EU IDs 1 through 7, 15, and 26, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 67 whether each of these emission units fired only gas during the period covered by the report. Report under Condition 66 if any fuel is burned other than gas.

1.3. For EU IDs 17 through 20, monitor, record and report in accordance with Condition 5.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units (EU IDs 8a, 9a, 10a, 13, 14, and 23a)

2. Visible Emissions Monitoring. The Permittee shall observe the exhaust of EU IDs 8a, 9a, 10a, 13, 14, and 23a for visible emissions using either the Method 9 Plan under Condition 2.1 or the Smoke/No-Smoke Plan under Condition 2.2. The Permittee may change visible-emissions plans for an emission unit at any time unless prohibited from doing so by Condition 2.3. The Permittee may for each unit elect to continue the visible emissions monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.

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

2.1. **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

a. **First Method 9 Observation**. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, observe exhaust for 18 minutes within six months after the issue date of this permit. For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.2. For any unit replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

b. **Monthly Method 9 Observations**. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that an emission unit operates.

c. **Semiannual Method 9 Observations**. After observing emissions for three consecutive operating months under Condition 2.1.b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations:

(i) Within six months after the preceding observation, or

(ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following six months after the preceding observation.

d. **Annual Method 9 Observations**. After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations:

(i) Within twelve months after the preceding observation; or

(ii) For an emission unit with intermittent operations, during the next scheduled operation immediately following twelve months after the preceding observation

e. **Increased Method 9 Frequency**. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that emission unit to at least monthly intervals as described in Condition 2.1.b, until the criteria in Condition 2.1.c for semiannual monitoring are met.

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

a. **Initial Monitoring Frequency**. Observe the exhaust during each calendar day that an emission unit operates.

b. **Reduced Monitoring Frequency**. After the emission unit has been observed on 30 consecutive operating days, if the emission unit operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that an emission unit operates.

c. **Smoke Observed**. If smoke is observed, either begin the Method 9 Plan of Condition 2.1 or perform the corrective action required under Condition 2.3

2.3. **Corrective Actions Based on Smoke/No Smoke Observations**. If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 2.2, then the Permittee shall either follow the Method 9 Plan of Condition 2.1 or

a. initiate actions to eliminate smoke from the emission 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 smoke; and

c. after completing the actions required under Condition 2.3.a,

(i) take smoke/no smoke observations in accordance with Condition 2.2.

(A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and

(B) continue as described in Condition 2.2.b; or

(ii) if the actions taken under Condition 2.3.a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of Condition 2.3.c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under Condition 2.2.a.

3. Visible Emissions Recordkeeping. When required by Condition 1.1, or in the event of replacement of any of EU IDs 8a, 9a, 10a, 13, 14, and 23a during the permit term, the Permittee shall keep records as follows:

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

3.1. When using the Method 9 Plan of Condition 2.1,

a. the observer shall record

(i) the name of the stationary source, emission unit and location, emission 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 mode (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, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet.

c. Calculate and record the highest 6-minute and 18-consecutive-minute averages observed.

3.2. If using the Smoke/No Smoke Plan of Condition 2.2, 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. from Table A, the ID of the emission unit observed;

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

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

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

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

g. operating mode (load or fuel consumption rate).

4. Visible Emissions Reporting. When required by Condition 1.1, or in the event of replacement of any of EU IDs 8a, 9a, 10a, 13, 14, and 23a during the permit term, the Permittee shall report visible emissions as follows:

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

4.1. Include in each operating report under Condition 67 for the period covered by the report:

a. which visible-emissions plan of Condition 2 was used for each emission unit; if more than one plan was used, give the time periods covered by each plan;

b. for each emission unit under the Method 9 Plan,

(i) copies of the observation results (i.e. opacity observations) for each emission unit that used the Method 9 Plan, 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-minute average observed; and

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

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

d. a summary of any monitoring or recordkeeping required under Conditions 2 and 3 that was not done;

4.2. Report under Condition 66:

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

b. if any monitoring under Condition 2 was not performed when required, report within three days of the date the monitoring was required.

Flares (EU IDs 17 through 20)

5. Visible Emissions Monitoring, Recordkeeping, and Reporting. For each of EU IDs 17 through 20, the Permittee shall observe one daylight flare event[1] within 12 months of the preceding flare event observation. If no event exceeds 1 hour within that 12-month period, then the Permittee shall observe the next daylight flare event.

5.1. Monitor flare events using Method 9.

5.2. Record the following information for observed events:

a. the flare(s) EU ID number;

b. results of the Method 9 observations;

c. reason(s) for flaring;

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

e. volume of gas flared.

5.3. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. If monitoring of a flare event is postponed for any of the reasons described in this condition, the Permittee shall include in the next operating report required by Condition 67 an explanation of the reason the event was not monitored.

5.4. Attach copies of the records required by Condition 5.2 with the operating report required by Condition 67 for the period covered by that report.

5.5. Report under Condition 66 whenever the opacity standard in Condition 1 is exceeded.

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

Particulate Matter Emissions Standards

6. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 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), 50.055(b)(1) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

6.1. For EU IDs 8a, 9a, 10a, 13, 14, and 23a, monitor, record and report in accordance with Conditions 7 through 9.

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

6.2. For EU IDs 1 through 7, 15, and 26, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 67 whether each of these emission units fired only gas during the period covered by the report. Report under Condition 66 if any fuel other than gas is burned.

6.3. For each of EU IDs 17 through 20, the Permittee must annually certify compliance under Condition 68 with the particulate matter standard.

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

PM Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Engines (EU IDs 8a, 9a, 10a, 13, 14, and 23a)

7. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines, EU IDs 8a, 9a, 10a, 13, 14, and 23a, to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 7.

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

7.1. Except as provided in Condition 7.4 within six months of exceeding the criteria of Condition 7.2.a or 7.2.b, either

a. conduct a PM source test according to requirements set out in Section 6; or

b. make repairs so that emissions no longer exceed the criteria of Condition 7.2; to show that emissions are below those criteria, observe emissions as described in Condition 2.1 under load conditions comparable to those when the criteria were exceeded.

7.2. Conduct the PM source test or make repairs according to Condition 7.1 if

a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or

b. for an emission unit with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

7.3. During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the highest average 6-minute opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

7.4. The automatic PM source test requirement in Conditions 7.1 and 7.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

8. Particulate Matter Recordkeeping for Diesel Engines. Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameters of EU IDs 8a, 9a, 10a, and 23a. Report the stack diameters in the next operating report under Condition 67.

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

9. Particulate Matter Reporting for Diesel Engines. The Permittee shall report as follows:

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

9.1. Report under Condition 66

a. the results of any PM source test that exceed the PM emissions limit; or

b. if one of the criteria of Condition 7.2 was exceeded and the Permittee did not comply with either Condition 7.1.a or 7.1.b, this must be reported by the day following the day compliance with Condition 7.1 was required;

9.2. Report observations in excess of the threshold of Condition 7.2.b within 30 days of the end of the month in which the observations occur;

9.3. In each operating report under Condition 67, include for the period covered by the report:

a. the dates, EU ID(s), and results when an observed 18-minute average was greater than an applicable threshold in Condition 7.2;

b. a summary of the results of any PM testing under Condition 7; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 7.2, if they were not already submitted.

Sulfur Compound Emission Standards Requirements

10. Sulfur Compound Emissions. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 through 7, 8a, 9a, 10a, 13 through 20, 23a, and 26 to exceed 500 ppm averaged over three hours.

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

For Fuel Oil [2] (EU IDs 8a, 9a, 10a, 13, 14, and 23a)

10.1. For EU IDs 13 and 14, the Permittee shall comply with the fuel sulfur content limit in Condition 18.

10.2. The Permittee shall do one of the following for each shipment of fuel:

[2] *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, effective 7/1/07.

a. If the fuel grade requires a sulfur content of 0.3 percent by weight or less, keep receipts that specify fuel grade or sulfur content and the amount of fuel; or

b. If the fuel grade does not require a sulfur content of 0.3 percent by weight or less, keep receipts that specify the fuel grade (if available) and fuel amount and

(i) Test the fuel for sulfur content; or

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

10.3. Fuel testing under Condition 10.2 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

10.4. If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 12 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

10.5. The Permittee shall report as follows:

a. If SO_2 emissions calculated under Condition 10.4 exceed 500 ppm, the Permittee shall report under Condition 66. When reporting under this condition, include the calculation under Condition 10.4.

b. The Permittee shall include in the operating report required by Condition 67

(i) a list of the fuel grades received at the stationary source during the reporting period;

(ii) for any grade with a maximum fuel sulfur greater than 0.3 percent sulfur, the fuel sulfur of each shipment; and

(iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.

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

For Fuel Gas (EU IDs 1 through 7, 15, and 26)

10.6. **Monitoring.** The Permittee shall analyze a representative sample of the fuel semi-annually to determine the sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

[Condition 11.1, Minor Permit AQ0067MSS01, 9/12/2014]

10.7. **Recordkeeping.** The Permittee shall keep records of the sulfur content analysis required under Condition 10.6.

10.8. **Reporting.**

a. Report in accordance with Condition 66 whenever the fuel combusted causes sulfur compound emissions to exceed the standard in Condition 10.

b. Include copies of the records required by Condition 10.7 with the operating report required by Condition 67 for the period covered by the report.

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

Pre-construction Permit[3] Requirements

Installation Notification

11. For EU ID 26, submit to the Department's Fairbanks Office the installation date, serial number, specification sheet[4], and maximum design rating of the turbine within 30 days after installation.

[Condition 1.1, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

Owner Requested Limits (ORLs) to Avoid a Prevention of Significant Deterioration (PSD) Permit under 18 AAC 50.306(a)

12. To avoid classification under 18 AAC 50.306 for NOx, indirect PM-2.5, and ozone (O_3), the Permittee shall limit the total combined emissions of NOx from EU IDs 8a, 9a, and 10a to 56.2 tpy or less as follows:

[Condition 5, Minor Permit AQ0067MSS02, 5/31/2019]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

12.1. Limit the combined hours of operation of EU IDs 8a, 9a, and 10a to no more than 6,800 hours per rolling 12-month period.

[Condition 5.1, Minor Permit AQ0067MSS02, 5/31/2019]

a. Install, maintain, and operate an hour meter on each of EU IDs 8a, 9a, and 10a.

b. Record the hour meter reading for each of EU IDs 8a, 9a, and 10a on the last day of each month.

c. No later than the 15th day of each month, calculate and record:

[Conditions 5.1.a through c, Minor Permit AQ0067MSS02, 5/31/2019]
[40 C.F.R. 71.6(a)(3)]

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

[4] The specification sheet is a one to ten page summary of the unit, including applicable emissions specifications for the unit, if available.

(i) The number of hours each of EU IDs 8a, 9a, and 10a operated during the previous calendar month. If an hour meter is not operational, assume continuous operation for that period.

(ii) The total number of hours each of EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months.

(iii) The combined total number of hours EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months.

[Conditions 5.1.c(i) through (iii), Minor Permit AQ0067MSS02, 5/31/2019]

d. Report the values under Condition 12.1.c in each operating report required in Condition 67 for each month of the reporting period.

e. Report in accordance with Condition 66 whenever a limit in Condition 12 or 12.1 is exceeded.

[Conditions 5.1.d & e, Minor Permit AQ0067MSS02, 5/31/2019]
[40 C.F.R. 71.6(a)(3)]

13. The Permittee shall limit NO_X emissions from EU ID 26 to no more than 39 tons per rolling 12 consecutive month period.

[Condition 4, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

13.1. Install and operate a data acquisition system capable of logging the following parameters for EU ID 26 at intervals of no greater than every three minutes:

[Condition 4.1, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i)]

a. Status of SoLoNOx mode (active or inactive), and

b. The inlet air temperature of EU ID 26 in degrees Fahrenheit (°F).

[Conditions 4.1a and b, Minor Permit AQ0067MSS01, 9/12/2014]

13.2. At least once every three minutes, the Permittee shall monitor and record the parameters listed in Condition 13.1.

[Conditions 4.2, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) & (ii)]

13.3. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

[Conditions 4.3, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) & (ii)]

a. Calculate and record the NO_X emissions for the previous calendar month. Emissions shall be calculated as follows:

[Conditions 4.3a, Minor Permit AQ0067MSS01, 9/12/2014]

(i) Calculate and record the total time, in minutes, that the unit operated in each of the operating scenarios listed in Conditions 13.3.a(i)(A) through 13.3.a(i)(C) using the data recorded under Condition 13.2.

[Conditions 4.3a(i), Minor Permit AQ0067MSS01, 9/12/2014]

(A) In SoLoNOx at inlet air temperatures > 0°F;

(B) In SoLoNOx at inlet air temperatures ≤ 0°F; and

(C) Out of SoLoNOx

[Conditions 4.3a(i)(A) through 4.3a(i)(C), Minor Permit AQ0067MSS01, 9/12/2014]

(ii) Calculate the emissions for each operating scenario in Condition 13.3.a(i) using Equation 1.

[Conditions 4.3a(ii), Minor Permit AQ0067MSS01, 9/12/2014]

Equation 1 $$E = n \times \frac{1\ hr}{60\ min} \times EF\ \frac{1\ ton}{2{,}000\ lb}$$

Where:

E = Emissions (tons per month)

n = Number of minutes EU ID 26 operated during the month in each operating scenario specified under Condition 13.3.a(i)

EF = Emission factor from Table B

(iii) Sum the emissions calculated under Condition 13.3.a(ii).

[Conditions 4.3a(iii), Minor Permit AQ0067MSS01, 9/12/2014]

b. Calculate and record the rolling 12 consecutive month NO_X emissions. Emissions shall be calculated by summing the monthly emissions in Condition 13.3.a with the emissions of the preceding 11 consecutive month period.

[Conditions 4.3b, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) & (ii)]

13.4. For EU ID 26, the Permittee shall report as follows:

[Conditions 4.4, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(iii)]

a. Include in the operating report required under Condition 67:

[Conditions 4.4a, Minor Permit AQ0067MSS01, 9/12/2014]

(i) The rolling 12 consecutive month NO_X emissions, and individual monthly NO_X emissions for the past 12 months, in tons; and

(ii) The total hours of operation in each operating scenario in Conditions 13.3.a(i)(A) through 13.3.a(i)(C).

[Conditions 4.4a(i) & 4.4a(ii), Minor Permit AQ0067MSS01, 9/12/2014]

b. Report in accordance with Condition 66 if 12-month rolling NO_X emissions for EU ID 26 exceed the limit set in Condition 13.

[Conditions 4.4b, Minor Permit AQ0067MSS01, 9/12/2014]

13.5. Data capture and recording under Condition 13.1, and calculations and recording under Condition 13.3 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

[Conditions 4.5, Minor Permit AQ0067MSS01, 9/12/2014]

Table B – EU ID 26 Emission Factors

Pollutant	SoLoNOx Operation	Temperature	Emission Factor (lb/hr)
NO_X	In SoLoNOx	> 0°F	6.4
		≤ 0°F	20.1
	Out of SoLoNOx	Any	11.7
CO	In SoLoNOx	> 0°F	5.2
		≤ 0°F	15.5
	Out of SoLoNOx	Any	826.0
VOC	In SoLoNOx	> 0°F	0.3
		≤ 0°F	0.6
	Out of SoLoNOx	Any	9.4

[Table 2, Minor Permit AQ0067MSS01, 9/12/2014]

14. The Permittee shall avoid project classification under 18 AAC 50.306(a) by limiting VOC emissions for EU ID 26 to no more than 39 tpy.

[Condition 5, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

14.1. Comply with Condition 13.1.

[Condition 5.1, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i)]

14.2. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

[Condition 5.2, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) & (ii)]

a. Calculate the VOC emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 13.3.a(i) through 13.3.a(iii).

b. Calculate and record the rolling 12 consecutive month VOC emissions. Emissions shall be calculated by summing the monthly emissions in Condition 14.2.a with the emissions from the preceding 11 consecutive month period.

[Condition 5.2a & 5.2b, Minor Permit AQ0067MSS01, 9/12/2014]

14.3. For EU ID 26, the Permittee shall report as follows:

[Condition 5.3, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(iii)]

a. Include in the operating report required in Condition 67:

[Condition 5.3a, Minor Permit AQ0067MSS01, 9/12/2014]

(i) The rolling 12 consecutive month VOC emissions, and individual monthly VOC emissions for the past 12 months, in tons; and

(ii) Hours of operation as required by Condition 13.4.a(ii).

[Condition 5.3a(i) & 5.3a(ii), Minor Permit AQ0067MSS01, 9/12/2014]

b. Report in accordance with Condition 66 if 12-month rolling VOC emissions for EU ID 26 exceed the limit set in Condition 14.

[Condition 5.3b, Minor Permit AQ0067MSS01, 9/12/2014]

14.4. Data capture and recording under Condition 14.1, and calculations and recording under Condition 14.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

[Condition 5.4, Minor Permit AQ0067MSS01, 9/12/2014]

15. The Permittee shall avoid project classification under 18 AAC 50.306(a) by limiting CO emissions for EU ID 26 to no more than 99 tpy.

[Condition 6, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

15.1. Comply with Condition 13.1.

[Condition 6.1, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i)]

15.2. For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

[Condition 6.2, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) & (ii)]

a. Calculate the CO emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 13.3.a(i) through 13.3.a(iii).

b. Calculate and record the rolling 12 consecutive month CO emissions. Emissions shall be calculated by summing the monthly emissions in Condition 15.2.a with the emissions from the preceding 11 consecutive month period.

[Condition 6.2a & 6.2b, Minor Permit AQ0067MSS01, 9/12/2014]

15.3. For EU ID 26, the Permittee shall report as follows:

[Condition 6.3, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(iii)]

a. Include in the operating report required in Condition 67:

[Condition 6.3a, Minor Permit AQ0067MSS01, 9/12/2014]

(i) The rolling 12 consecutive month CO emissions, and individual monthly CO emissions for the past 12 months, in tons; and

(ii) Hours of operation as required by Condition 13.4.a(ii).

[Condition 6.3a(i) & 6.3a(ii), Minor Permit AQ0067MSS01, 9/12/2014]

b. Report in accordance with Condition 66 if 12-month rolling CO emissions for EU ID 26 exceed the limit set in Condition 15.

[Condition 6.3b, Minor Permit AQ0067MSS01, 9/12/2014]

15.4. Data capture and recording under Condition 15.1, and calculations and recording under Condition 15.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

[Condition 6.4, Minor Permit AQ0067MSS01, 9/12/2014]

Department Imposed Limit to Avoid a Prevention of Significant Deterioration (PSD) Permit under 18 AAC 50.306(a) and Minor Permitting under 18 AAC 50.502(c)(3) for SO_2

16. The Permittee shall avoid project classification under 18 AAC 50.502(c)(3) by limiting SO_2 emissions to no more than 7.9 tpy as follows:

[Condition 7, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

16.1. Limit the hydrogen sulfide (H_2S) concentration of fuel gas burned in EU ID 26 to no more than 650 parts per million volume (ppmv).

[Condition 7.1, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(1)]

16.2. Monitor, record and report the hydrogen sulfide concentration of the fuel gas burned in EU ID 26 as specified in Conditions 10.6, 10.7, and 10.8.b.

[Condition 7.2, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(i) through (iii)]

16.3. Report in accordance with Condition 66 whenever the fuel combusted causes sulfur compound emissions to exceed the limit of Condition 16.

[Condition 7.3, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(3)(iii)]

16.4. Comply with Condition 17.1.

[Condition 7.4, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(1)]

Department Imposed Limit to Avoid Minor Permitting under 18 AAC 50.502(c)(3) for NO_X and SO_2

17. The Permittee shall limit the increase in NO_X and SO_2 emissions to no more than 10 tpy each:

[Condition 8, Minor Permit AQ0067MSS01, 9/12/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

17.1. Remove EU ID 24[5] from service[6] prior to EU ID 26 becoming fully operational[7]. Report in the first operating report required under Condition 67:

[Condition 8.1, Minor Permit AQ0067MSS01, 9/12/2014]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 71.6(a)(3)(iii)]

a. The date EU ID 24 was removed from service;

b. The installation[8] date of EU ID 26; and

c. The date EU ID 26 became fully operational.

[Condition 8.1(a) through (c), Minor Permit AQ0067MSS01, 9/12/2014]

Conditions to Protect Ambient Air Quality

18. Fuel Oil Sulfur Content: EU IDs 13 and 14. Do not burn fuel oil with sulfur content greater than 0.3 percent sulfur by weight.

[Condition 2, Construction Permit 067CP01, 6/20/2003]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

18.1. Monitor, record, and report in accordance with Conditions 10.2, 10.3, and 10.5.b(i) and 10.5.b(ii).

[Condition 2.1 and 2.2, Construction Permit 067CP01, 6/20/2003]
[40 C.F.R. 71.6(a)(3)(i) through (iii)]

18.2. Report in accordance with Condition 66 any time a limit in Condition 18 is exceeded.

[40 C.F.R. 71.6(a)(3)(iii) & 71.6(c)(6)]

19. Fuel Consumption Cap: EU IDs 13 and 14

19.1. Limit operations of EU ID 13, East Crane Engine, to 66,900 gallons fuel oil per 12-month rolling period.

[Condition 3.1, Construction Permit 067CP01, 6/20/2003]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

[5] EU ID 24 was Backup Generator Drive #6, a 500 kW engine. This engine has been removed from the Monopod Platform as stated in the application addendum for AQ0067TVP03 dated April 21, 2015.
[6] "Remove from service" is defined as disconnecting the fuel lines to the emission units.
[7] "Fully operational" is defined as completing all testing and commissioning requirements after unit installation. Under no circumstances shall the testing and commissioning requirements exceed 60 days after unit installation.
[8] "Installation" is defined as the point when the unit is ready for testing.

19.2. Limit operations of EU ID 14, West Crane Engine, to 24,400 gallons fuel oil per 12-month rolling period.

[Condition 3.2, Construction Permit 067CP01, 6/20/2003]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

19.3. Record fuel consumption by EU IDs 13 and 14 as follows.

[Condition 3.3, Construction Permit 067CP01, 6/20/2003]
[40 C.F.R. 71.6(a)(3)(ii)]

a. When 12-month rolling total fuel consumption is less than 90% of total allowable fuel consumption, record fuel consumption no less than once each month for each unit.

b. When rolling total fuel consumption is greater than 90% of the allowable limit, record fuel consumption each week.

[Condition 3.3a & b, Construction Permit 067CP01, 6/20/2003]

19.4. Include monthly 12-month rolling totals for each of EU IDs 13 and 14 in the operating report required by Condition 67.

[Condition 3.4, Construction Permit 067CP01, 6/20/2003]
[40 C.F.R. 71.6(a)(3)(iii)]

19.5. Report in accordance with Condition 66 any time a limit in Condition 19.1 or 19.2 is exceeded.

[40 C.F.R. 71.6(a)(3)(iii) & 71.6(c)(6)]

Insignificant Emission Units

20. For EU ID 21 and emission 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:

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

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

20.2. **PM 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)]

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

[18 AAC 50.055(c)]

20.4. **General MR&R for Insignificant Emission Units**

a. The Permittee shall submit the certification of compliance of Condition 68 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 49;

c. The Permittee shall report in the operating report required by Condition 67 if an emission 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 become greater than any of those thresholds; and

d. No other monitoring, recordkeeping or reporting is required.

[18 AAC 50.346(b)(4)]

Section 4. Federal Requirements

Emission Units Subject to Federal NSPS Subpart A

21. NSPS Subpart A Notification. For any affected facility[9] or existing facility[10] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

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

21.1. the date that construction or reconstruction of an affected facility commences postmarked no later than 30 days after such date;

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

21.2. 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]

21.3. 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), postmarked 60 days or as soon as practicable before the change is commenced and shall include:

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change;

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

21.4. 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:

[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,

[9] *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, effective 7/1/07

[10] *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, effective 7/1/07.

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.

22. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 1, 2, and 26, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1, 2, and 26 is inoperative.

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

23. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit to the Department and to EPA an excess emissions and monitoring systems performance report (EEMSP)[11] (excess emissions are defined in applicable subparts and limits are in Conditions 30 and 32.3) and-or summary report form (see Condition 24). The Permittee shall submit the report(s) to the EPA and Department semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the EPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

23.1. The date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

23.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 1, 2 and 26; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

[11] The federal EEMSP report is not the same as the state excess emission report required by Condition 66.

23.3. The date and time identifying each period during which a Continuous Monitoring System (CMS) was inoperative except for zero and span checks and the nature of any repairs or adjustments.

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

23.4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

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

24. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU IDs 1, 2 and 26. The report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows:

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

24.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form unless the EEMSP report described in Condition 23 is requested, or

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

24.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form and the EEMSP described in Condition 23.

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

25. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct initial source tests according to Section 6 and as indicated in this condition on any affected facility within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after initial startup, and at such other times as may be required by EPA, and shall provide the Department and EPA with a written report of the results of the source test. The Permittee shall:

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

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

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

25.2. Conduct source tests under conditions specified by EPA to be based on representative performance of EU IDs 1, 2, and 26.

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

25.3. Notify the Department and EPA at least 30 days in advance of the source test.

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

25.4. Provide adequate sampling ports, safe sampling platform(s), safe access to sampling platform(s), and utilities for sampling and testing equipment.

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

26. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1, 2 and 26 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1, 2 and 26.

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

27. 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 29, 30, 32.2 and 32.3, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1, 2 and 26 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]

28. NSPS Subpart A Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Condition 29, 30, 31, or 32. 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]

Turbines Subject to Federal NSPS Subpart GG

29. NSPS Subpart GG NO_X Standard. The Permittee shall not allow the exhaust gas concentration of NO_X, on a dry basis at 15 percent O_2 and ISO conditions, from each of EU IDs 1 and 2 to exceed 170.4 ppmv.

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

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

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

a. **Periodic Testing.** For each turbine subject to Condition 29 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall comply with Conditions 29.1.a(i) and 29.1.a(ii).

(i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the limit in Condition 29, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, according to the criteria below:

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

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

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the limit in Condition 29, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the limit in Condition 29.

b. **Substituting Test Data.** The Permittee may use a Method 20, or Method 7E and either Method 3 or 3A, test under Condition 29.1.a performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if

(i) the Permittee demonstrates that test results are less than or equal to 90 percent of the limit in Condition 29, and are projected under Condition 29.1.c to be less than or equal to 90 percent of the limit at maximum load;

(ii) for any source test done after the issuance date of this permit, the Permittee identifies in a source test plan under Condition 58

(A) the turbine to be tested;

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

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

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

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

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

(4) uses the same fuel type from the same source.

(iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the limit in Condition 29.

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

(i) Conduct all tests under Condition 29.1 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

(ii) Demonstrate in the source test plan for any test performed after the issue date of this permit whether the test is scheduled when maximum NO_X emissions are expected.

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

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

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

(2) a demonstration based on the additional test information that projects the test results from Condition 29.1 to predict the highest load at which emissions will comply with the limit in Condition 29;

(B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit in Condition 29;

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

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

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

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

(D) the Permittee may revise a load limit by submitting results of a more recent Method 20, or Method 7E and either Method 3 or 3A, test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 29.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 29.1.c(iii)(C) and

(iv) In order to perform a Method 20, or Method 7E and either Method 3 or 3A, emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 29.1.c(iii).

(v) For the purposes of Conditions 29.1 through 29.3, maximum load means the hourly average load that is the smallest of

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

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

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

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

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

a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 29.1.c(iii) does not show compliance with the limit in Condition 29 at maximum load.

(i) The Permittee shall keep records of

(A) load; or

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

(ii) Records in Condition 29.2.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 29.1.c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 29.1.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Condition 29, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

29.3. **Reporting.** The Permittee shall keep report as follows:

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

a. In each operating report under Condition 67 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 29.1.c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 29.2.a during the period covered by the operating report.

b. In each operating report under Condition 67 for each turbine for which Condition 29.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify

(i) the turbine;

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

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

c. The Permittee shall report under Condition 66 if

(i) a test result exceeds the emission standard;

(ii) Method 20, or Method 7E and either Method 3 or 3A, testing is required under Condition 29.1.a(i) or 29.1.a(ii) but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 29.1.c(iii)(B) and 29.1.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

30. NSPS Subpart GG Sulfur Standard. For EU IDs 1 and 2, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

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

30.1. **Monitoring.** The Permittee shall monitor compliance with the standards listed in this condition, as follows:

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

a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 30.1.b. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 30.2. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 C.F.R. 60.17), which measure the major sulfur compounds may be used.

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

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

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

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

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

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

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

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

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

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

(i) *Gaseous fuel.* For owners and operators that elect not to demonstrate sulfur content using options in Condition 30.1.b, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

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

(ii) *Custom schedules.* Notwithstanding the requirements of Condition 30.1.d(i), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 C.F.R. 60.334(i)(3)(i) and (i)(3)(ii), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 30. The two custom sulfur monitoring schedules set forth in 40 C.F.R. 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.

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

30.2. **Test Methods and Procedures.** If the owner or operator is required under Condition 30.1.d to periodically determine the sulfur content of the fuel combusted in the turbine, the owner or operator shall analyze the samples for the total sulfur content of the fuel as follows:

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

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

[40 C.F.R. 60.335(b)(10)(1) & (2), Subpart GG]

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

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

30.3. **Recordkeeping.** The Permittee shall keep records as required by Conditions 30.1 and 30.2, and in accordance with Condition 62.

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

30.4. **Reporting.** For each affected unit that elects to periodically determine the fuel sulfur content under Condition 30.1, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 23, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 C.F.R. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

[18 AAC 50.040(a)(2)(V), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]
[40 C.F.R. 60.334(j), Subpart GG]

a. If the owner or operator is required to monitor the sulfur content of the fuel under Condition 30.1:

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

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

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

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

Engines Subject to Federal NSPS Subpart IIII

31. For EU IDs 8a, 9a, 10a, and 23a, the Permittee shall comply with all applicable requirements in 40 C.F.R. 60 Subpart IIII for stationary compression ignition (CI) internal combustion engines (ICE) whose construction, modification, or reconstruction commences after July 11, 2005.

[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), Subpart IIII]

31.1. The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in Conditions 31.3 and 31.4 over the entire life of the engine.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4206, Subpart IIII]

31.2. The Permittee shall comply with the applicable provisions of NSPS Subpart A as specified in Table 8 to NSPS Subpart IIII.

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

NSPS Subpart IIII Emission Standards

31.3. For EU IDs 8a, 9a, and 10a, the Permittee must comply with the following emission standards in 40 C.F.R. 89.112.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4202(a)(2), 60.4205(b), & 60.4216(c), Subpart IIII]

a. NMHC + NO_X: 6.4 g/kW-hr

b. CO: 3.5 g/kW-hr

c. PM: 0.20 g/kW-hr

31.4. For EU ID 23a, the Permittee must comply with the following emission standards in 40 C.F.R. 89.112.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4202(a)(2) & 60.4205(b), Subpart IIII]

a. NMHC + NO_X: 4.0 g/kW-hr

b. CO: 3.5 g/kW-hr

c. PM: 0.20 g/kW-hr

31.5. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must meet the not-to-exceed (NTE) standards as indicated in 40 C.F.R. 60.4212, for performance tests conducted in-use.

[40 C.F.R. 60.4205(e), Subpart IIII]

NSPS Subpart IIII Monitoring Requirements

31.6. For EU ID 23a, the Permittee must install a non-resettable hour meter prior to startup of the engine.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.4209(a), Subpart IIII]

NSPS Subpart IIII Compliance Requirements

31.7. For EU IDs 8a, 9a, 10a, and 23a, 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)]

a. You must do all of the following, except as permitted under Condition 31.7.c

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

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

(ii) Change only those emission-related settings that are permitted by the manufacturer; and

(iii) Meet the requirements of 40 C.F.R. parts 89, 94 and/or 1068, as they apply to you.

[40 C.F.R. 60.4211(a)(1) through (3), Subpart IIII]

b. You must comply with the emission standards in Conditions 31.3 and 31.4 by purchasing an engine certified to the emission standards in Conditions 31.3 and 31.4 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 31.7.c.

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

c. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

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

(i) You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

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

31.8. For EU ID 23a, 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)]

a. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in Conditions 31.8.a(i) through 31.8.a(iii). In order for the engine to be considered an emergency stationary ICE under NSPS Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in Conditions 31.8.a(i) through 31.8.a(iii), is prohibited. If you do not operate the engine according to the requirements in Conditions 31.8.a(i) through 31.8.a(iii), the engine will not be considered an emergency engine under NSPS Subpart IIII and must meet all requirements for non-emergency engines.

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

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

[40 C.F.R. 60.4211(f)(1), Subpart IIII]

(ii) You may operate your emergency stationary ICE for any combination of the purposes specified in Conditions 31.8.a(ii)(A) through 31.8.a(ii)(C) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 31.8.a(iii) counts as part of the 100 hours per calendar year allowed by this condition.

[40 C.F.R. 60.4211(f)(2), Subpart IIII]

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

(B) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

(C) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 C.F.R. 60.4211(f)(2)(i) through (iii), Subpart IIII]

(iii) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 31.8.a(ii). Except as provided in 40 C.F.R 60.4211(f)(3)(i), the 50 hours per calendar year for nonemergency 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. 60.4211(f)(3), Subpart IIII]

NSPS Subpart IIII Test Methods and Other Procedures

31.9. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must conduct performance tests pursuant to NSPS Subpart IIII according to 40 C.F.R. 60.4212(a) through (c).

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.4212, Subpart IIII]

NSPS Subpart IIII Recordkeeping and Reporting Requirements

31.10. For EU ID 23a, 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)(ii)]

a. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

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

b. If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 31.8.a(ii)(B) and 31.8.a(ii)(C) or that operates for the purposes specified in 40 C.F.R. 60.4211(f)(3)(i), you must submit an annual report according to the requirements in 40 C.F.R. 60.4214(d)(1) through (3).

[40 C.F.R. 60.4214(d), Subpart IIII]

(i) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(ii) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 C.F.R. 60.4.

[40 C.F.R. 60.4214(d)(2) and (3), Subpart IIII]

Turbines Subject to Federal NSPS Subpart KKKK

32. For EU ID 26, the Permittee shall comply with all applicable requirements of NSPS Subpart KKKK for stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4300 & 60.4305(a), Subpart KKKK]

NSPS Subpart KKKK General Compliance Requirements

32.1. For EU ID 26, the Permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4333(a), Subpart KKKK]

NSPS Subpart KKKK NO_X Emission Limit

32.2. **NSPS Subpart KKKK NO_X Standard.** For EU ID 26, the Permittee shall comply with the following:

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

a. The Permittee must not allow the exhaust gas concentration of NO_X from EU ID 26 to exceed:

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4320(a), Subpart KKKK]

(i) 42 ppm at 15 percent O_2 dry exhaust basis or 290 ng/J of useful output (2.3 lb/MWh).

(ii) 150 ppm at 15 percent O_2 dry exhaust basis or 1,100 ng/J of useful output (8.7 lb/MWh) when operating at less than 75 percent of peak load or at temperatures less than 0°F.

[Table 1, Subpart KKKK]

b. **Monitoring, Recordkeeping, and Reporting.** The Permittee must:

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

(i) Perform annual performance tests in accordance with Condition 32.2.c to demonstrate continuous compliance. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit for the turbine, you must resume annual performance tests.

[40 C.F.R. 60.4340(a), Subpart KKKK]

(ii) Keep records of all performance test data in accordance with Condition 62

[40 C.F.R. 71.6(c)(6)]

(iii) Submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

[40 C.F.R. 60.4375(b), Subpart KKKK]

c. **Performance Tests.** The Permittee must conduct an initial performance test, as required in Condition 25. Subsequent NO_X performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test) as required in Condition 32.2.b(i).

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.4400(a), Subpart KKKK]

(i) The Permittee may use either one of the two methodologies described below in Conditions 32.2.c(i)(A) and 32.2.c(i)(B) to conduct performance tests. For each test run:

[40 C.F.R. 60.4400(a)(1), Subpart KKKK]

(A) Measure the NO_X concentration (in parts per million (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:

[40 C.F.R. 60.4400(a)(1)(i), Subpart KKKK]

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

Where:

E	=	NO_X emission rate, in lb/MWh
$1.194 \text{ X } 10^{-7}$	=	conversion constant, in lb/(dscf-ppm)
$(NO_X)_c$	=	average NO_X concentration for the run, in ppm
Q_{std}	=	stack gas volumetric flow rate, in dscf/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

(B) 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 (or flow meters), 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.

[40 C.F.R. 60.4400(a)(1)(ii), Subpart KKKK]

(ii) 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.

[40 C.F.R. 60.4400(a)(2), Subpart KKKK]

(iii) Notwithstanding Condition 32.2.c(ii), you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of 40 C.F.R. 60 if the following conditions are met:

[40 C.F.R. 60.4400(a)(3), Subpart KKKK]

(A) You may 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.

[40 C.F.R. 60.4400(a)(3)(i), Subpart KKKK]

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

[40 C.F.R. 60.4400(a)(3)(ii), Subpart KKKK]

(1) 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 ±5ppm or ±0.5 percent 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

(2) For turbines with a NO_X standard greater than 15 ppm @ 15% O_2, you may 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 ±3ppm or ±0.3 percent CO_2 (or O_2) from the mean for all traverse points.

[40 C.F.R. 60.4400(a)(3)(ii)(A) & (B), Subpart KKKK]

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

[40 C.F.R. 60.4400(b), Subpart KKKK]

(A) Compliance with the applicable emission limit in Condition 32.2 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 32.2.

[40 C.F.R. 60.4400(b)(4), Subpart KKKK]

(B) The ambient temperature must be greater than 0 °F during the performance test.

[40 C.F.R. 60.4400(b)(6), Subpart KKKK]

NSPS Subpart KKKK SO_2 Emission Limit

32.3. **NSPS Subpart KKKK SO_2 Standard.** The Permittee must not burn in EU ID 26 any fuel which contains total sulfur with potential sulfur emissions in excess of 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input.

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

a. **Monitoring.** The Permittee shall monitor compliance with the standard in Condition 32.3 as follows:

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

(i) You must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 32.3.a(ii). The sulfur content of the fuel must be determined using total sulfur methods described in Condition 32.3.b. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 C.F.R. 60.17), which measure the major sulfur compounds, may be used.

[40 C.F.R. 60.4360, Subpart KKKK]

(ii) You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input. You must use one of the following sources of information to make the required demonstration:

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

(A) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas use is 140 grains of sulfur or less per 100 standard cubic feet; or

(B) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 C.F.R. 75 is required.

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

(iii) The frequency of determining the sulfur content of the fuel must be as follows:

[40 C.F.R. 60.4370, Subpart KKKK]

(A) *Gaseous fuel.* If you elect not to demonstrate sulfur content using options in Condition 32.3.a(ii), and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

[40 C.F.R. 60.4370(b), Subpart KKKK]

(B) *Custom schedules.* Notwithstanding the requirements of Condition 32.3.a(iii)(A), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 C.F.R. 60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Condition 32.3.

[40 C.F.R. 60.4370(c), Subpart KKKK]

(1) The two custom sulfur monitoring schedules set forth in 40 C.F.R. 60.4370(c)(1)(i) through (iv) and in 40 C.F.R. 60.4370(c)(2) are acceptable, without prior Administrative approval.

[40 C.F.R. 60.4370(c)(1), Subpart KKKK]

b. **Test Methods and Procedures.** If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see 40 C.F.R. 60.17) for natural gas. The fuel analyses of this condition may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using:

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.4415(a)(1), Subpart KKKK]

(i) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 C.F.R. 60.17).

[40 C.F.R. 60.4415(a)(1)(ii), Subpart KKKK]

c. **Recordkeeping.** Keep records as required by Conditions 32.3.a and 32.3.b, and in accordance with Condition 62.

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

d. **Reporting.** For each affected unit required to periodically determine the fuel sulfur content under Condition 32.3.a, the owner or operator must submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 23, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions must be reported for all periods of unit operation, including startup, shutdown and malfunction.

[18 AAC 50.040(a)(2)(QQ), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]
[40 C.F.R. 60.4375(a), Subpart KKKK]

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

[40 C.F.R. 60.4385, Subpart KKKK]

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

[40 C.F.R. 60.4385(a), Subpart KKKK]

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

[40 C.F.R. 60.4385(c), Subpart KKKK]

Emission Units Subject to Federal NESHAP Subpart A

33. NESHAP Subpart A Requirements. For EU IDs 13, 14, and 21, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to NESHAP Subpart ZZZZ.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6665 & Table 8, Subpart ZZZZ]

Engines Subject to Federal NESHAP Subpart ZZZZ

34. For EU IDs 8a, 9a, 10a, 13, 14, 21, and 23a, the Permittee shall comply with all applicable requirements of NESHAP Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

[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, 63.6590, & 63.6590(a), Subpart ZZZZ]

34.1. For EU IDs 8a, 9a, 10a, and 23a, the Permittee must meet the requirements of 40 C.F.R. 63 by meeting the requirements of Condition 31. No further requirements apply 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. 63.6590(c), Subpart ZZZZ]

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

34.2. For EU IDs 13, 14, and 21, the Permittee shall comply with the following:

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

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

(i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

b. During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

c. Sources have the option to utilize an oil analysis program as described in Condition 34.4 in order to extend the specified oil change requirement in Condition 34.2.a(i).

[40 C.F.R. 63.6603(a), (b), (b)(1), 63.6625(h), & Table 2d, Item 1, Subpart ZZZZ]

NESHAP Subpart ZZZZ General Requirements

34.3. For EU IDs 13, 14, and 21, the Permittee shall comply with the following:

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

a. You must be in compliance with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.

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

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

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

NESHAP Subpart ZZZZ Monitoring, Installation, Collection, Operation, and Maintenance Requirements

34.4. For EU IDs 13, 14, and 21, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 34.2.a. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 34.2.a. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6625(i), Subpart ZZZZ]

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

34.5. For EU IDs 13, 14, and 21, the Permittee shall comply with the following:

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

a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 34.2 according to methods specified in Condition 34.5.a(i) or 34.5.a(ii).

[40 C.F.R. 63.6640(a), Subpart ZZZZ]

(i) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

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

[40 C.F.R. 63.6625(e) & Table 6, Item 9, Subpart ZZZZ]

b. You must also report each instance in which you did not meet the requirements in Table 8 to NESHAP Subpart ZZZZ that apply to you.

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

NESHAP Subpart ZZZZ Reporting Requirements

34.6. For EU IDs 13, 14, and 21, the Permittee must report all deviations as defined in NESHAP Subpart ZZZZ in the semiannual monitoring report required by Condition 67.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]
[40 C.F.R. 63.6650(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Recording Requirements

34.7. For EU IDs 13, 14, and 21, the Permittee shall comply with the following:

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

a. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.

[40 C.F.R. 63.6655(e) & (e)(3), Subpart ZZZZ]

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

[40 C.F.R. 63.6660(a), Subpart ZZZZ]

c. As specified in 40 C.F.R. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 C.F.R. 63.6660(b), Subpart ZZZZ]

d. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. 63.10(b)(1).

[40 C.F.R. 63.6660(c), Subpart ZZZZ]

General Federal Requirements

35. Asbestos NESHAP. The Permittee shall comply with the 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]

36. Protection of Stratospheric Ozone, 40 C.F.R. 82

Subpart F – Recycling and Emissions Reduction

36.1. **Refrigerant Recycling and Disposal.** The Permittee shall comply with the 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]

Subpart G – Significant New Alternatives Policy

36.2. 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)]
[40 C.F.R. 82, Subpart G, §82.174(b) through (d),]

Subpart H – Halon Emissions Reduction

36.3. 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)]
[40 C.F.R. 82, Subpart H, §82.270(b) through (f)]

NESHAPs Applicability Determinations

37. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b) and 63.10(b)(3). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the Permittee 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).

37.1. 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 §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), & 63.10(b)(3)]
[40 C.F.R. 63.760(e), Subpart HH]

38. NSPS and NESHAP Reports. The Permittee shall:

38.1. **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 67 for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the reports submitted during the reporting period; and

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

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

Section 5. General Conditions

Standard Terms and Conditions

39. 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)]

40. 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)]

41. 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)]

42. **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]

43. **Assessable Emissions.** The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of

43.1. the stationary source's assessable potential to emit of 671 TPY; or

43.2. the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon credible evidence of actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by the most representative of 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;

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)(3), 50.035, 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

44. Assessable Emission Estimates. Emission fees will be assessed as follows:

44.1. no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Ste 303 ,Juneau, AK 99811-1800; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

44.2. if no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 43.1.

[18 AAC 50.040(j)(3), 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

45. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 3 through 7, and 15 through 20:

45.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

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

45.3. keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030, 50.326(j)(3), & 50.346(b)(5)]

46. 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)]

47. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d), 50.040(e), 50. 326(j)(3), & 50.346(c)]

47.1. 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 47.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

47.2. The Permittee shall report according to Condition 49.

48. 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 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)]

49. 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 50.110, 50.040(e), 50.326(j)(3), & 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

49.1. Monitoring, Recordkeeping, and Reporting for Condition 49:

a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 66.

b. 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 49.

49.2. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. 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 49; or

b. the Department notifies the Permittee that it has found a violation of Condition 49.

49.3. 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 49; and

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

49.4. With each operating report under Condition 67, the Permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the Permittee or the Department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

49.5. 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.

50. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard[12] listed in Condition 29, 30, 31, or 36 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 66 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 66.

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

Open Burning Requirements

51. Open Burning. The Permittee shall not conduct open burning at the stationary source.

[18 AAC 50.065, 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)]
[Condition 31, Operating Permit 067TVP01, 12/2/2002]

[12] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology 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.

Section 6. General Source Testing and Monitoring Requirements

52. 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)]

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

[18 AAC 50.220(b)]

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

53.2. at the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

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

54.1. 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]

54.2. 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]

54.3. 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]

54.4. 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 and may use the form in Section 11 to record data.

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

54.5. 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]

54.6. Source testing for emissions of PM-10 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]

54.7. 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]

55. 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 emission 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)]

56. Test Exemption. The Permittee is not required to comply with Conditions 58, 59 and 60 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.1) or Smoke/No Smoke Plan (Condition 2.2).

[18 AAC 50.345(a)]

57. 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)]

58. Test Plans. Except as provided in Condition 56, 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 emission 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 52 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 performed without resubmitting the plan.

[18 AAC 50.345(a) & (m)]

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

60. Test Reports. Except as provided in Condition 56, 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 63. 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)]

61. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 20.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

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

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

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

62.2. 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.

Reporting Requirements

63. 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.

63.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if

a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and

b. the person providing the electronic signature has made an agreement, with the certifying authority described in Condition 63.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.345(a) & (j), 50.205, & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

64. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide data reports, emission source test reports, or other records electronically under a cover letter certified in accordance with Condition 63.

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

65. 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)]

66. Excess Emissions and Permit Deviation Reports.

66.1. Except as provided in Condition 49, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) 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. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the excess emissions or deviation occurred, except as provided in Conditions 66.1.c(ii) and 66.1.c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 66.1.c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

66.2. When reporting excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at http://dec.alaska.gov/applications/air/airtoolsweb, or if the Permittee prefers, the form contained in Section 13 of this permit. The Permittee must provide all information called for by the form that is used.

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

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

67. Operating Reports. During the life of this permit[13], the Permittee shall submit an operating report 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.

67.1. 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.

67.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 67.1, the Permittee shall identify

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

67.3. When excess emissions or permit deviations have already been reported under Condition 66 the Permittee shall cite the date or dates of those reports.

67.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.1.e and 2.2.c 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.

[13] *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.

67.5. **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(a) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

68. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report[14].

68.1. 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;

68.2. **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.

68.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA Region 10, Mail Stop: OCE-101, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101.

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

69. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions, by emission unit, of CO, NH_3, NO_X, PM_{10}, $PM_{2.5}$, SO_2, VOCs and lead (Pb) (and lead compounds) using the form in Section 14 of this permit, as follows:

69.1. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 250 tons per year (TPY) of NH_3, PM_{10}, $PM_{2.5}$ or VOCs; or

b. 2500 TPY of CO, NO_X or SO_2.

69.2. Every third year by April 30 if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 0.5 tons per year of actual lead (Pb), or

[14] See Condition 68.2 for clarification on the number of reports required.

b. 1000 TPY of CO; or

c. 100 TPY of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_X or VOCs.

69.3. For reporting under Condition 69.2, the Permittee shall report in 2015 for calendar year 2014, 2018 for calendar year 2017, 2021 for calendar year 2020, etc., in accordance with the Environmental Protection Agency set schedule.

69.4. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 for each stack associated with an emission unit.

[18 AAC 50.346(b)(8) & 18 AAC 50.200]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1); & 40 C.F.R. 51, Appendix A to Subpart A]

Section 8. Permit Changes and Renewal

70. Permit Applications and Submittals. The Permittee shall comply with the following requirements for submitting application information to the EPA Region 10:

70.1. 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[15];

70.2. The information shall be submitted to Part 70 Operating Permit Program, US EPA Region 10, Mail Stop: OAW-150, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101.

70.3. 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

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

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

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

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

72. 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. Part 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:

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

72.2. 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;

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

[15] The documents required in Condition 70.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 555 Cordova Street, Anchorage, AK 99501.

72.4. 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)]
[40 C.F.R. 71.6(a)(12)]

73. Operational Flexibility. The Permittee may make Section 502(b)(10)[16] 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):

73.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.

73.2. For each such change, the written notification required above 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.

73.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 73.

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

74. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than February 5, 2023 and no later than February 5, 2024. 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)(2) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

[16] As defined in 40 C.F.R. 71.2, 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.

Section 9. Compliance Requirements

General Compliance Requirements

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

75.1. included and specifically identified in the permit; or

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

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

76. The Permittee must comply with each permit term and condition.

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

76.2. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 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

a. an enforcement action;

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

c. denial of an operating permit renewal application.

[18 AAC 50.040(j), 326(j) & 50.345(a) & (c)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

77. 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)]

78. 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

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

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

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

78.4. 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)]

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

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

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

80.2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

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

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

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

Table C - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All existing emission units	40 C.F.R. 60, Subparts B, C, Ca, Cb, Da, Db, Dc, Ea, Eb, F, G, H, I, J, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z	No existing emission unit is an "affected facility" at the issue date of this permit.
All existing emission units	40 C.F.R. 60, Subparts AA, AAa, BB, CC, DD, EE, 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, HHHH, LLLL, MMMM, and OOOO	No existing emission unit is an "affected facility" at the issue date of this permit.
1, 2	40 C.F.R. 60.7(a)(1) through (a)(3)	These requirements are one-time only requirements at startup. These shields apply to emission units as currently installed and may not apply upon modification, reconstruction, or replacement
1, 2	40 C.F.R. 60.7(a)(5) and (a)(7)	There are no continuous monitoring systems required for these two NSPS affected sources under the applicable subpart.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Diesel Beam Tanks 1-4	40 C.F.R. 60 Subpart K	Tank commenced construction prior to June 11, 1973. Tank has not been modified or reconstructed per the definitions of the Subpart. Monopod Platform meets the definition of a drilling and production facility under §60.111(b). Per §60.110(b), this Subpart does not apply to tanks at drilling and production facilities.
Diesel Beam Tanks 1-4	40 C.F.R. 60 Subpart Ka	Tanks commenced construction prior to May 18, 1978. Tanks have not been modified or reconstructed per the definitions of the Subpart.
Diesel Beam Tanks 1-4	40 C.F.R. 60 Subpart Kb	Tank commenced construction prior to July 23, 1984. Tank has not been modified or reconstructed per the definitions of the Subpart.
15	40 C.F.R. Part 60 Subpart Dc	This boiler is not affected source because its maximum design capacity is less than 10 MMBtu/hr.
1, 2	40 C.F.R. 60.333(a)	Permittee must comply with either §60.333(a) or (b). Permittee has chosen to comply with §60.333(b).
1, 2	40 C.F.R. 60.334(a) and (b)	These requirements apply only to turbines using water injection for NOx control. This turbine does not use water injection for NOx control.
1, 2	40 C.F.R. 60.334(c) – (g)	These requirements specify optional monitoring methods that Hilcorp chooses not to conduct.
1, 2	40 C.F.R. 60.334(h)(2)	Permittee does not claim an allowance for bound nitrogen, therefore nitrogen monitoring is not required.
3 through 7	40 C.F.R. 60 Subpart GG	These turbines were constructed prior to October 3, 1977, and have not been modified or reconstructed since that time. In the event that these turbines are reconstructed or modified during the term of this permit, they become subject to the requirements of Subpart KKKK.
1 through 7	40 C.F.R. 60 Subpart KKKK	Construction, modification, or reconstruction of the stationary combustion turbine commenced prior to the applicability date of February 18, 2005. A permit shield from NSPS Subpart KKKK only applies to currently installed units until modified, reconstructed or replaced.
26	40 C.F.R. 60.4335	EU ID 26 does not have water or steam injection.
13, 14, 21	40 C.F.R. 60 Subpart IIII	This regulation is for diesel-fired engines constructed after July 11, 2005. These units were constructed before July 11, 2005 and therefore are not affected sources.
8a, 9a, 10a, 13, 14, 23a	40 C.F.R. 60 Subpart JJJJ	This regulation is for gas-fired engines constructed after June 12, 2006. These units are diesel-fired and therefore are not affected sources.
Diesel Beam Tanks 1-4	40 C.F.R. 60 Subpart OOOO	Per §60.5360, tank commenced construction, reconstruction, or modification prior to August 23, 2011.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All existing emission units	40 C.F.R. 61, Subparts B, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB, and FF	No existing emission unit is an "affected facility" at the issue date of this permit.
All existing emission units	40 C.F.R. 63, Subparts B, F, G, H, J, L, M, N, O, Q, R, S, T, U, W, X, AA, BB, CC, EE, GG, II, JJ, KK, LL, MM, PP, QQ, RR, 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, and ZZZZZZ	No existing emission unit is an "affected facility" at the issue date of this permit. This source is not a major source of HAPs, as defined in 40 C.F.R. 63.2.
All existing emission units	40 C.F.R. 63, Subparts AAAAAAA, BBBBBBB, CCCCCCC, DDDDDDD, EEEEEEE, and HHHHHHH	No existing emission unit is an "affected facility" at the issue date of this permit. This source is not a major source of HAPs, as defined in 40 C.F.R. 63.2.
16	40 C.F.R. 63 Subpart HH	Pursuant to 40 C.F.R. 63.760(e)(1), this emission unit is exempt from requirements under Subpart HH because Monopod Platform is a stationary source that exclusively processes "black oil" as defined in 40 C.F.R. 63.761.
1 through 7 and 21	40 C.F.R. 63 Subpart YYYY	Monopod Platform is not a major source of HAP emissions. Subpart YYYY applies to major sources of HAP emissions. A permit shield from Subpart YYYY only applies to the currently installed units until the source becomes a major source of HAP emissions.
13	40 C.F.R. 63 Subpart ZZZZ, numerical CO emission limitations	Monopod Platform is not accessible by the Federal Aid Highway System and this engine does not have to meet a numerical CO emission limitation, only operating limits.
14	40 C.F.R. 63 Subpart ZZZZ, numerical CO emission limitations	This engine is less than 300 hp so it does not have to meet a numerical CO emission limitation.
8a, 9a, 10a, 23a	40 C.F.R. 63 Subpart ZZZZ, other than 40 C.F.R. 63.6590(c)	Monopod Platform is exempt from being required to meet the requirements of NESHAP Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII, per §63.6590(c)(l).

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
21	40 C.F.R. 63 Subpart ZZZZ, §§63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6645(b)-(h), Operating limits under Table 2b	Monopod Platfonn is not a major source of HAP emissions.
21	40 C.F.R. 63 Subpart ZZZZ, §§63.6604, 63.6612, 63.6615, 63.6620,63.6625(g) 63.6630, 63.6635,63.6640(b), (d), 63.6650(a)-(e), 63.6655(a), (d), Table 2d, Item 3	Monopod Platform is not accessible by the FAHS.
21	40 C.F.R. 63 Subpart ZZZZ, §§63.6625(a)-(d), (l), 63.6640(1), 63.6650(g), (h), 63.6655(b), (c), (l)	Monopod Platform will not use CEMS, CPMS, landfill/digester gas, and EU ID 21 is not classified as an emergency engine.
15	40 C.F.R. 63 Subpart DDDDD	Stationary source is not a major source of HAPs.
15	40 C.F.R. 63 Subpart JJJJJJ	These boilers are gas-fired boilers and 63.11195(e) exempts gas-fired boilers from this subpart.
All existing emission units	40 C.F.R. 82.1, Subpart A – Production and Consumption Controls	Stationary source does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
All existing emission units	40 C.F.R. 82.30, Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
All existing emission units	40 C.F.R. 82.60, Subpart C – Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
All existing emission units	40 C.F.R. 82.80, Subpart D – Federal Procurement	Subpart applies only to Federal Departments, agencies, and instrumentalities.
All existing emission units	40 C.F.R. 82.100, Subpart E – The labeling of Products Using Ozone-Depleting Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances
All existing emission units	40 C.F.R. 82.158, Subpart F – Recycling and Emissions Reduction	Stationary source does not manufacture or import recovery and recycling equipment
All existing emission units	40 C.F.R. 82.160, Approved Equipment Testing Organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
All existing emission units	40 C.F.R. 82.164, Reclaimer Certification	Stationary source does not sell reclaimed refrigerant.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All existing emission units	40 C.F.R. 82, Subpart F, Appendix C – Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third party entity that certifies recovery equipment.
All existing emission units	40 C.F.R. 82, Subpart F, Appendix D – Standards for Becoming a Certifying Program for Technicians	Stationary source does not have a technician certification program.
All existing emission units	40 C.F.R. 82.174(a), Subpart G – Significant New Alternatives Policy Program: Prohibitions	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.
All existing emission units	40 C.F.R. 82.270(a), Subpart H – Halon Emissions Reduction	Stationary source does not manufacture halon.
All existing emission units	40 C.F.R. 82.304, Subpart I – Ban on Refrigeration and Air-Conditioning Appliances Containing HCFCs	Stationary source does not sell or distribute any identified banned products.
Mobile Engines	18 AAC 50.055(a)(1) – Fuel-Burning Equipment Emission Standards; Visible Emissions	Mobile internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).
All existing emission units	18 AAC 50.055(a)(2), Fuel-Burning equipment standards, opacity emission limit of 30 percent, 3-minute average	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.055(a)(4), (5), and (8), Fuel-burning equipment standards, opacity emission limit of 20 percent, 6-minute average	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.055(a)(6) and (7), Fuel-burning equipment standards, opacity emission limit of 10 percent, 6-minute average	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.055(a)(9), Fuel-burning equipment standards, opacity emission limit of 20 percent, 3-minute average	No affected emission units within the permitted stationary source.
Mobile Engines	18 AAC 50.055(b)(1) – Fuel-Burning Equipment Emissions Standards: Particulate Matter	Mobile internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).
All existing emission units	18 AAC 50.055(b)(2) and (3), Fuel-burning equipment standards, PM emission limit of 0.1 grains	No affected emission units within the permitted stationary source.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All existing emission units	18 AAC 50.055(b)(4), Fuel-burning equipment standards, PM emission limit of 0.15 grains	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.055(b)(5) and (6), Fuel-burning equipment standards, PM emission limit of 0.04 grains	No affected emission units within the permitted stationary source.
Mobile Engines	18 AAC 50.055(c) - Fuel-Burning Equipment Emissions Standards: Sulfur Compound Emissions	Mobile internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).
All existing emission units	18 AAC 50.060, Pulp Mills	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.070, Marine Vessels, visible emission standards	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.075, Wood fired heating device emission standards	No affected emission units within the permitted stationary source.
All existing emission units	18 AAC 50.085, Volatile liquid storage tank emission standards	Regulations only apply to tanks within the Port of Anchorage.
All existing emission units	18 AAC 50.090, Volatile liquid loading racks and delivery emission standards	Regulations only apply to facilities within the Port of Anchorage.

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions form 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."

- 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 VE 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, is Plume…: check "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 cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.

  Wet Bulb Temperature: can be measured using a sling psychrometer

  RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.

  Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.

  Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.

  Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.

  Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.

  Observer's Signature, Date: sign and date after performing VE observation.
- Organization: observer's employer.

Certified By, Date: name of "smoke school" certifying observer and date of most recent certification.

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

Page No.____________

Stationary Source Name	Type of Emission Unit
Emission Unit Location	
City / State / Zip	
Phone # (Key Contact)	Stationary Source ID Number
Process Equipment	Operating Mode
Control Equipment	Operating Mode
Describe Emission Point/Location	
Height above ground level / Height relative to observer	Clinometer Reading
Distance From Observer (Start / End)	Direction From Observer (Start / End)
Describe Emissions & Color (Start / End)	
Visible Water Vapor Present? No / Yes	If yes, determine approximate distance from the stack exit to where the plume was read
Point in Plume at Which Opacity Was Determined	
Describe Plume Background (Start / End)	Background Color (Start / End)
Sky Conditions: (Start / End)	
Wind Speed (Start / End)	Wind Direction From (Start / End)
Ambient Temperature	Wet Bulb Temp / RH percent

SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From 3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks

Observation Date / Start Time / End Time

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

Range of Opacity
Minimum / Maximum

I have received a copy of these opacity observations	Print Observer's Name
Print Name:	Observer's Signature / Date
Signature:	Observer's Affiliation:
Title / Date	Certifying Organization
	Certified By: / Date

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		Comments
	Start	End		Sum	Average	

Section 12. Material Balance Calculation

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

A. = 31,200 x [**wt%S_{fuel}**] = 31,200 x _____ = _____

B. = 0.148 x [**wt%S_{fuel}**] = 0.148 x _____ = _____

C. = 0.396 x [**wt%C_{fuel}**] = 0.396 x _____ = _____

D. = 0.933 x [**wt%H_{fuel}**] = 0.933 x _____ = _____

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

F. = 20.9 – [**vol%$_{dry}O_{2,\ exhaust}$**] = 20.9 - _____ = _____

G. = [**vol%$_{dry}O_{2,\ exhaust}$**] ÷ F = _____ ÷ _____ = _____

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

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

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percent's of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Condition 10.2. The fuel weight percent's of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_2$, exhaust) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S_{fuel} = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%$_{dry}O_2$, exhaust = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13. ADEC Notification Form[17]

Monopod Platform	AQ0067TVP03
Stationary Source Name	**Air Quality Permit No.**
Hilcorp Alaska, LLC	
Company Name	**Date**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

End Date _____ / _____ / _____ Time: _____ : _____ (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

☐ Deviation from Permit Condition – Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

Section 1. Excess Emissions

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

(b) Cause of Event (Check one that applies):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

(c) Description
Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

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

[17] Revised as of August 20, 2008.

(e) Type of Incident (please check only one):

☐ Opacity _____ % ☐ Venting _____ gas/scf ☐ Control Equipment Down

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable? ☐ Yes ☐ No

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ Yes ☐ No

Certify Report (Go to end of form.)

Section 2. Permit Deviations

(a) Permit Deviation Type (check only one box, corresponding with the section in the permit):

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recording/Reporting/Compliance Certification

☐ Standard Conditions Not Included in the Permit

☐ Other Section: _____ (Title of section and section number of your permit).

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Recordkeeping Failure

☐ Insignificant Emission Unit

☐ Stationary Source Wide

(b) Emission Unit Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the deviation.

EU ID	EU Name	Permit Condition/ Potential Deviation

(c) Description of Potential Deviation:
Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions:
Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To Submit this Report:

Fax to: 907-451-2187

Or

Email to: DEC.AQ.Airreports@alaska.gov

If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 67.

Or

Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643

Or

Phone Notification: 907-451-5173

Phone notifications require a written follow-up report.

Or

Submission of information contained in this report can be made electronically at the following website:
https://myalaska.state.ak.us/dec/air/airtoolsweb/

If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]

Section 14. Emission Inventory Form

ADEC Reporting Form **Emission Inventory Reporting** **State of Alaska Department of Environmental Conservation** **Division of Air Quality**	**Emission Inventory Year- [ ]**

Mandatory information is highlighted in bright yellow. Make additional copies as needed.

Stationary Source Detail		
Inventory start date		
Inventory end date		
ADEC ID or Permit Number		
EPA ID:		
Census Area/ Community		
Facility Name		
Facility Physical Location	**Address:**	
	City, State, Zip Code:	
	Latitude:	**Longitude:**
	Legal Description:	
Owner Name & Address & contact number	**Owner Name:**	
	Owner Address:	
	Phone Number:	
Mailing Contact Information	**Mailing Address:**	
Line of Business (NAICS)		
Line of Business (SIC)		
Facility Status:		

Emissions Unit Data			
Specifications			
ID		**Design Capacity**	
Description			
Emissions Unit Status			
Manufacturer		**Manufactured Year**	
Model Number		**Serial Number**	
Regulations			
Regulation/Description:			
Control Equipment (List All if applicable):			
ID			
System Description	-		
Equipment Type(s)			
Manufacturer			
Model			
Control Efficiency (%)			
Capture Efficiency (%)			
Pollutants Controlled		**Reduction Efficiency (%):**	
		Reduction Efficiency (%):	

Processes	
Process	**Primary Process**
SCC Code	(ex. 20100201)
	>
	>
	>
	>
Material Processed	
Period Start	
Period End	
Throughput (units)	
Summer %	
Fall %	

Winter %	
Spring %	

Operational Schedule

Days/Week	
Hours/Day	
Weeks/Year	
Hours/Year	

Fuel Characteristics

Heat Content	Elem. Sulfur Content (%)	H2S Sulfur Content	Ash Content (if applicable)

Heating

Heat Input	Heat Output	Heat Values Convention

Emissions Operating Type:

Pollutant	Emission Factor (EF)	EF Numerator	EF Denominator	EF Source	Tons
Carbon Monoxide (CO)					
Nitrogen Oxides NOx					
PM_{10} Primary (PM_{10}-PRI)					
$PM_{2.5}$ Primary (PM_{25}-PRI)					
Sulfur Dioxide (SO_2)					
Ammonia (NH_3)					
Lead and lead compounds					
Volatile Organic Compounds (VOC)					

Emissions' Release Point

Release Point ID					
Apportion%					

Process	**Secondary Process**
SCC Code	(ex. 20100201)
	>
	>

	>
	>
Material Processed	
Period Start	
Period End	
Throughput (units)	
Summer %	
Fall %	
Winter %	
Spring %	

Operational Schedule

Days/Week	
Hours/Day	
Weeks/Year	
Hours/Year	

Fuel Characteristics

Heat Content	Elem. Sulfur Content (%)	H2S Sulfur Content	Ash Content (if applicable)

Heating

Heat Input	Heat Output	Heat Values Convention

Emissions Operating Type:

Pollutant	Emission Factor (EF)	EF Numerator	EF Denominator	EF Source	Tons
Carbon Monoxide (CO)					
Nitrogen Oxides NOx					
PM_{10} Primary (PM_{10}-PRI)					
$PM_{2.5}$ Primary (PM_{25}-PRI)					
Sulfur Dioxide (SO_2)					
Ammonia (NH_3)					
Lead and lead compounds					
Volatile Organic Compounds (VOC)					

Emissions' Release Point					
Release Point ID					
Apportion%					

Stack Detail (Release Point)	
> Specifications	
ID	
Type	
Description	
Stack Status	
> Stack Parameters	
Stack Height (ft)	
Stack Diameter (ft)	
Exit Gas Temp (F)	
Exit Gas Velocity (fps)	
Exit Gas Flow Rate (acfm)	
> Geographic Coordinate	
Latitude	
Longitude	
Datum	
Accuracy (meters)	
Base Elevation (meters)	

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)*

To submit this report:

1. Fax this form to: 907-465-5129; or
2. E-mail to: DEC.AQ.airreports@alaska.gov; or
3. Mail to: ADEC
   Air Permits Program
   PO Box 111800
   Juneau, AK 99811-1800

Or

4. Direct data entry for emission inventory can be done through the Air Online System (AOS). A myAlaska account is needed to gain access and a profile needs to be set up in Permittee Portal.
   http://dec.alaska.gov/Applications/Air/airtoolsweb/

[18 AAC 50.346(b)(9)]

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Permit No.: AQ0067MSS01 **Final – September 12, 2014**

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit No. AQ0067MSS01 to the Permittee listed below.

Permittee:	**Hilcorp Alaska, LLC** PO Box 244027 Anchorage, AK 99524 (907) 777-8300
Owner:	Same as Permittee
Operator:	Same as Permittee
Stationary Source:	**Monopod Platform**
Location:	Latitude: 60° 53' 49" N; Longitude: 151° 34' 45.5" W
Physical Address:	Upper Cook Inlet, AK
Project:	Turbine Owner Requested Limit
Permit Contact:	John A. Barnes, (907) 777-8370

This project is classified under 18 AAC 50.508(5) for establishing an owner requested limit to avoid a permit classification. This permit satisfies the obligation of the Permittee to obtain a minor permit under these provisions. As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this minor permit.

John F. Kuterbach
Manager, Air Permits Program

Table of Contents

Section 1. Emission Units Inventory

1. The Permittee is authorized to install and operate the emission units listed in Table 1 in accordance with the terms and conditions of this permit. Some emission units listed in Table 1 have specific monitoring, record keeping, or reporting conditions in this permit. Except as noted elsewhere in the permit, the information in Table 1 is for informational purposes only. The specific unit descriptions do not restrict the Permittee from replacing an emission unit identified in Table 1. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement emission unit, including any applicable minor or construction permit requirements.

   1.1 For Emission Unit (EU) ID 26, submit to the Department's Fairbanks Office the installation date, serial number, specification sheet[1], and maximum design rating of the turbine within 30 days after installation.

Table 1 – Emission Unit Inventory

EU ID	Tag No.	Name	Make/Model	Fuel	Maximum Capacity
24	M-MP-1650	Backup AC Generator #6[2]	Cat D-398A	Diesel	500 kW
26	TBD	Generator Drive[3]	Solar Centaur 40	NG	4,400 hp

[1] The specification sheet is a one to ten page summary of the unit, including applicable emissions specifications for the unit, if available.
[2] EU 24 is already installed at the stationary source.
[3] EU ID 26 is subject to NSPS Subpart KKKK

Section 2. Emission Fees

2. **Assessable Emissions.** The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of:

   2.1 the stationary source's assessable potential to emit of 1,324 tpy; or

   2.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by:

      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.

3. **Assessable Emission Estimates.** Emission fees will be assessed as follows:

   3.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., PO Box 111800, Juneau, AK 99811-1800; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

   3.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 2.1.

Section 3. Owner Requested Limits to Avoid a Prevention of Significant Deterioration (PSD) Permit under 18 AAC 50.306(a)

4. The Permittee shall limit NO_X emissions from EU ID 26 to no more than 39 tons per rolling 12 consecutive month period.

4.1 Install and operate a data acquisition system capable of logging the following parameters for EU ID 26 at intervals of no greater than every three minutes:

a. Status of SoLoNOx mode (active or inactive), and

b. The inlet air temperature of EU ID 26 in degrees Fahrenheit (°F).

4.2 At least once every three minutes, the Permittee shall monitor and record the parameters listed in Condition 4.1.

4.3 For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

a. Calculate and record the NO_X emissions for the previous calendar month. Emissions shall be calculated as follows:

(i) Calculate and record the total time, in minutes, that the unit operated in each of the operating scenarios listed in Conditions 4.3a(i)(A) through 4.3a(i)(C) using the data recorded under Condition 4.2.

(A) In SoLoNOx at inlet air temperatures > 0°F;

(B) In SoLoNOx at inlet air temperatures ≤ 0°F; and

(C) Out of SoLoNOx

(ii) Calculate the emissions for each operating scenario in Condition 4.3a(i) using Equation 1.

Equation 1 $$E = n \times \frac{1\ hr}{60\ min} \times EF \times \frac{1\ ton}{2{,}000\ lb}$$

Where:

E = Emissions (tons per month)

n = Number of minutes EU ID 26 operated during the month in each operating scenario specified under Condition 4.3a(i)

EF = Emission factor from Table 2

(iii) Sum the emissions calculated under Condition 4.3a(ii).

b. Calculate and record the rolling 12 consecutive month NO_X emissions. Emissions shall be calculated by summing the monthly emissions in Condition 4.3a with the emissions of the preceding 11 consecutive month period.

4.4 For EU ID 26, the Permittee shall report as follows:

a. Include in the operating report described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50:

(i) The rolling 12 consecutive month NOx emissions, and individual monthly NOx emissions for the past 12 months, in tons; and

(ii) The total hours of operation in each operating scenario in Conditions 4.3a(i)(A) through 4.3a(i)(C).

b. Notify the Department under excess emissions and permit deviations described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50 if 12-month rolling NO_X emissions for EU ID 26 exceed the limit set in Condition 4.

4.5 Data capture and recording under Condition 4.1, and calculations and recording under Condition 4.3 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

Table 2 - EU ID 26 Emission Factors

Pollutant	SoLoNOx Operation	Temperature	Emission Factor (lb/hr)
NO_X	In SoLoNOx	> 0°F	6.4
		≤ 0°F	20.1
	Out of SoLoNOx	Any	11.7
CO	In SoLoNOx	> 0°F	5.2
		≤ 0°F	15.5
	Out of SoLoNOx	Any	826.0
VOC	In SoLoNOx	> 0°F	0.3
		≤ 0°F	0.6
	Out of SoLoNOx	Any	9.4

5. The Permittee shall avoid project classification under 18 AAC 50.306(a) by limiting VOC emissions for EU ID 26 to no more than 39 tpy.

5.1 Comply with Condition 4.1.

5.2 For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

a. Calculate the VOC emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 4.3a(i) through 4.3a(iii).

b. Calculate and record the rolling 12 consecutive month VOC emissions. Emissions shall be calculated by summing the monthly emissions in Condition 5.2a with the emissions from the preceeding 11 consecutive month period.

5.3 For EU ID 26, the Permittee shall report as follows:

a. Include in the operating report described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50:

(i) The rolling 12 consecutive month VOC emissions, and individual monthly VOC emissions for the past 12 months, in tons; and

(ii) Hours of operation as required by Condition 4.4a(ii).

b. Notify the Department under excess emissions and permit deviations described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50 if 12-month rolling VOC emissions for EU ID 26 exceed the limit set in Condition 5.

5.4 Data capture and recording under Condition 5.1, and calculations and recording under Condition 5.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

6. The Permittee shall avoid project classification under 18 AAC 50.306(a) by limiting CO emissions for EU ID 26 to no more than 99 tpy.

6.1 Comply with Condition 4.1.

6.2 For EU ID 26, the Permittee shall comply with the following no later than the 15th day of each calendar month:

a. Calculate the CO emissions for the previous calendar month. Emissions shall be calculated as specified in Conditions 4.3a(i) through 4.3a(iii).

b. Calculate and record the rolling 12 consecutive month CO emissions. Emissions shall be calculated by summing the monthly emissions in Condition 6.2a with the emissions from the preceeding 11 consecutive month period.

6.3 For EU ID 26, the Permittee shall report as follows:

a. Include in the operating report described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50:

(i) The rolling 12 consecutive month CO emissions, and individual monthly CO emissions for the past 12 months, in tons; and

(ii) Hours of operation as required by Condition 4.4a(ii).

b. Notify the Department under excess emissions and permit deviations described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50 if 12-month rolling CO emissions for EU ID 26 exceed the limit set in Condition 6.

6.4 Data capture and recording under Condition 6.1, and calculations and recording under Condition 6.2 may be electronic. All records shall be in a form suitable and readily available for expeditious inspection and review.

Section 4. Department Imposed Limit to Avoid a Prevention of Significant Deterioration (PSD) Permit under 18 AAC 50.306(a) and Minor Permitting under 18 AAC 50.502(c)(3) for SO_2

7. The Permittee shall avoid project classification under 18 AAC 50.502(c)(3) by limiting SO_2 emissions to no more than 7.9 tpy as follows:

   7.1 Limit the hydrogen sulfied (H_2S) concentration of fuel gas burned in EU ID 26 to no more than 650 parts per million volume (ppmv).

   7.2 Monitor, record and report the hydrogen sulfide concentration of the fuel gas burned in EU ID 26 as specified in Conditions 11.1 and 11.2.

   7.3 Report as a permit deviation, as set out in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50, whenever the fuel combusted causes sulfur compound emissions to exceed the limit of Condition 7.

   7.4 Comply with Condition 8.1.

Section 5. Department Imposed Limit to Avoid Minor Permitting under 18 AAC 502(c)(3) for NO_X and SO_2

8. The Permittee shall limit the increase in NO_X and SO_2 emissions to no more than 10 tpy each:

   8.1 Remove EU ID 24 from service[4] prior to EU ID 26 becoming fully operational[5]. Report in the first operating report described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50:

   a. The date EU ID 24 was removed from service;

   b. The installation[6] date of EU ID 26; and

   c. The date EU ID 26 became fully operational.

[4] "Remove from service" is defined as disconnecting the fuel lines to the emission units.
[5] "Fully operational" is defined as completing all testing and commissioning requirements after unit installation. Under no circumstances shall the testing and commissioning requirements exceed 60 days after unit installation.
[6] Installation is defined as the point when the unit is ready for testing.

Section 6. State Emission Standards

9. **Visible Emissions.** The Permittee shall comply with the following:

   9.1 Do not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of all fuel burning units (excluding all non-road engines), to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

   9.2 For EU ID 26, burn only gas as fuel. Monitoring for this emission unit shall consist of a certification that the unit fired only gas in each operating report as set out in the applicable operating permit issued to the stationary source under AS 46.14.130(b) and 18 AAC 50. Report as a permit deviation as set out in the applicable operating permit issued to the stationary source under AS 46.14.130(b) and 18 AAC 50 if any fuel other than gas is burned in EU ID 26.

10. **Particulate Matter (PM).** The Permittee shall comply with the following:

   10.1 Do not cause or allow PM emitted from all fuel burning units (excluding all non-road engines) to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

   10.2 For EU ID 26, burn only gas as fuel. Monitoring for this emission unit shall consist of a certification that the unit fired only gas in each operating report as set out in the applicable operating permit issued to the stationary source under AS 46.14.130(b) and 18 AAC 50. Report as a permit deviation as set out in the applicable operating permit issued to the stationary source under AS 46.14.130(b) and 18 AAC 50 if any fuel other than gas is burned in EU ID 26.

11. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as sulfur dioxide (SO_2), from all fuel burning units (excluding all non-road engines) to exceed 500 parts per million averaged over three hours. The Permittee shall comply with the following:

   11.1 Analyze a representative sample of the fuel burned in EU ID 26 semi-annually to determine the sulfur content using a Reference Method contained in 40 C.F.R. 60, Appendix A; an ASTM D4810 test method; or an alternative method approved by the Department. Monitor and record the results.

   11.2 Include copies of the records required by Condition 11.1 with each stationary source operating report described in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50.

   11.3 Report as a permit deviation, as set out in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 11.

Section 7. Federal Requirements

Federal New Source Performance Standards (NSPS)

12. **NSPS Subpart A Notification.** For any affected facility[7] or existing facility[8] regulated under NSPS requirements on 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

    12.1 The date that construction or reconstruction of an affected facility commences postmarked no later than 30 days after such date;

    12.2 the actual date of initial startup of an affected facility postmarked within 15 days after such date;

    12.3 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), postmarked 60 days or as soon as practicable before the change is commenced and shall include:

        a. information describing the precise nature of the change,

        b. present and proposed emission control systems,

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

        d. the expected completion date of the change;

    12.4 the date of a continuous monitoring system performance demonstration, postmarked not less than 30 days prior to such date;

    12.5 the anticipated date for conducting the opacity observations required by 40 C.F.R. 60.11(e)(1), including, if appropriate, a request for the Department to provide a visible emissions reader during a performance test, postmarked not less than 30 days prior to such date;

    12.6 that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required in lieu of Method 9 observation data as allowed by 40 C.F.R. 60.11(e)(5), postmarked not less than 30 days prior to the date of the performance test; and

[7] "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, effective 7/1/07

[8] "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, effective 7/1/07.

12.7 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:

12.8 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:

a. the name and address of the owner or operatior,

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.

13. **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 ID 26, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU ID 26 is inoperative.

14. **NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.** Except as provided for in Condition 15, the Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)[9] any time a limit in Conditions 20 and 21 has been exceeded, as described in this condition for EU ID 26. The permittee shall submit the EEMSP reports to EPA semi-annually, postmarked by the 30th day following the end of each 6-month period. Written reports of excess emissions shall include the following information[10]:

14.1 The magnitude of excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

[9] The federal EEMSP report is not the same as the State excess emission report required by the applicable operating permit issued to the stationary source under AS 14130(b) and 18 AAC 50.
[10] Excess emission is as defined in 40 C.F.R. 60.4420 for Subpart KKKK affected units.

14.2 Identification of each period of excess emissions that occurred during startup, shutdown and malfunction (if known) of EU ID 26; the nature and cause of any malfunction, and the corrective action taken or preventative measures adopted.

15. **NSPS Subpart A Summary Report Form**. The Permittee shall submit to the Department and to EPA a "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 for each pollutant monitored for EU ID 26, as follows:

15.1 If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5percent of the total operating time for the reporting period, submit a summary report form instead of the EEMSP report described in Condition 14, otherwise

15.2 Submit a summary report form along with the EEMSP described in Condition 14.

16. **NSPS Subpart A Performance (Source) Tests.** Within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after initial startup of such facility, or at such other times required by the EPA, the Permittee shall conduct an initial performance test and furnish the Department and EPA with a written report of the results of such performance test. Tests shall be conducted according to the general source testing requirements in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50, and as outlined in 40 C.F.R. 60.8(a) through (e). The Permittee shall:

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

16.2 Conduct source tests under conditions specified by EPA to be based on representative performance of EU ID 26.

16.3 Notify the Department and EPA at least 30 days in advance of the source test.

16.4 Provide adequate sampling ports, safe sampling platform(s), safe access to sampling platform(s), and utilities for sampling and testing equipment.

17. **NSPS Subpart A Good Air Pollution Control Practice.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate EU ID 26 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Department will determine whether acceptable operating and maintenance procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of EU ID 26.

18. **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 any standard in 40 C.F.R. Part 60, 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 a source 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.

19. **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 an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

Turbine Subject to NSPS Subpart KKKK, EU ID 26

20. **NSPS Subpart KKKK NO_X Standard.** The Permittee shall not allow the exhaust gas concentration of NO_X from EU ID 26 to exceed 42 ppmv at 15 percent O_2 dry exhaust basis, or 290 ng/J of useful output (2.3 lb/MWh).

20.1 **Waivers.** The Permittee shall provide to the Department a written copy of any U.S. EPA granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules upon request by the Department. The Permittee shall keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit.

20.2 **Monitoring.** The Permittee shall perform annual performance tests in accordance with Condition 20.5 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 20, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test).

b. If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit in Condition 20, you must resume annual performance tests.

20.3 **Recordkeeping.** The Permittee shall keep records of all performance test data in accordance with the general recordkeeping requirements in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50.

20.4 **Reporting.** The Permittee shall submit:

a. a written report of the results of each performance test required under Conditions 20.2 and 20.5 before the close of business on the 60th day following the completion of the performance test; and

b. excess emissions reports as set out in the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50.

20.5 **Periodic Testing.** NO_X performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous test).

a. The Permittee may use either one of the two methodologies described below to conduct the performance tests. For each test run:

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

$$E = \frac{(1.194 * 10^{-7}) * (NO_X)_c * Q_{std}}{P}$$

Where:

E = NO_X emission rate, in lb/MWh

1.193 x 10^{-7} = conversion constant, in lb/dscf-ppm

$(NO_X)_c$ = average NO_X concentration for the run, in ppm

Q_{std} = stack gas volumentric flow rate, in dscf/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 this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part 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 20.5b, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of this part 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 ±5ppm or ±0.5 percent 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) For turbines with a NO_X standard greater than 15 ppm @ 15% O_2, you may 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 ±3ppm or ±0.3 percent CO_2 (or O_2) from the mean for all traverse points.

d. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. The Permittee shall:

(i) perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice, and

(ii) conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

e. Compliance with the applicable emission limit in 40 C.F.R. 60.4320 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 40 C.F.R. 60.4320.

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

21. **NSPS Subpart KKKK SO_2 Standard.**

21.1 **Sulfur Requirements for gas or liquid fuel.** The Permittee must not:

a. cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO_2 in excess of 780 nanograms per Joule (ng/J) (6.2 pounds per megawatt-hour (lb/MWh)) gross output; or

b. burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement

21.2 **Sulfur Monitoring Exemption.** The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input. The Permittee must use one of the following sources of information to make the required demonstration:

a. 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 for oil use is 0.05 weight percent (500 ppmw), the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input; or

b. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this 40 C.F.R. 60 is required.

21.3 **Sulfur Monitoring.**

a. **Gaseous fuel:** If the Permittee elects not to demonstrate sulfur content using options in Condition 21.2, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

b. **Custom Schedules:** The Permittee may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply, as allowed under 40 C.F.R. 60.4370(c). The Permittee must notify the Department of selection of this option prior to commencement of monitoring.

21.4 **Reporting Requirements.**

a. All reports required under Condition 12 must be postmarked by the 30th day following the end of each 6-month period.

Section 8. Standard Permit Conditions

22. 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

    22.1 an enforcement action; or

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

23. 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.

24. 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

    24.1 enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;

    24.2 have access to and copy any records required by this permit;

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

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

25. 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.

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

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

Section 9. Permit Documentation

December 27, 2013	Hilcorp Alaska, LLC submitted a minor permit application to establish an ORL for NO_X, CO and VOCs.
February 25, 2014	The Department sent an information request to Hilcorp requesting revisions to the PSD applicability analysis.
February 26, 2014	Hilcorp Alaska, LLC responded to information request with a revised application.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR PERMIT

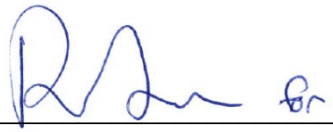
Minor Permit No. AQ0067MSS02 Issue Date: Final – May 31, 2019

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ0067MSS02 to the Permittee listed below.

Permittee:	Hilcorp Alaska, LLC 3800 Centerpoint Dr. Suite 1400 Anchorage, AK 99503
Stationary Source:	Monopod Platform
Location:	60º 53´ 49" North; 151º 34´ 45.5" West
Project:	Drilling Engines ORL Project
Permit Contact:	Julieanna Potter, (907) 777-8444, jupotter@hilcorp.com

This project is classified under 18 AAC 50.508(5) for an Owner Requested Limit (ORL) to avoid PSD permit requirements under 18 AAC 50.306 for oxides of nitrogen (NOx), ozone (O_3), and indirect particulate matter with an aerodynamic diameter not exceeding a nominal 2.5 micrometers (PM-2.5).

This permit satisfies the obligation of the Permittee to obtain a minor permit under 18 AAC 50. As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this permit.



James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....best available control technology
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
CFR .....Code of Federal Regulations
CAA.....Clean Air Act
CO .....carbon monoxide
Department .....Alaska Department of Environmental Conservation
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....emissions unit
gr/dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
gph.....gallons per hour
HAPs .....hazardous air pollutants [as defined in AS 46.14.990]
hp.....horsepower
ID.....emissions unit identification number
MACT .....maximum achievable control technology [as defined in 40 CFR 63]
MMBtu/hr.....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R.....monitoring, recordkeeping, and reporting
NESHAPs.....National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
NOx .....nitrogen oxides
NSPS .....New Source Performance Standards [as contained in 40 CFR 60]
O & M .....operation and maintenance
O_2.....oxygen
O_3.....ozone
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
SO_2 .....sulfur dioxide
The Act.....Clean Air Act
tph.....tons per hour
tpy.....tons per year
VOC .....volatile organic compound [as defined in 40 CFR 51.100(s)]
wt% .....weight percent

Section 1 Emissions Unit Inventory

Emissions Unit (EU) Authorization. The Permittee is authorized to install and operate the emissions units listed in Table A in accordance with the terms and conditions of this permit and the minor permit application. Except as noted elsewhere in this permit, the information in Table A is for identification purposes only. The specific emissions unit descriptions do not restrict the Permittee from replacing an emissions unit identified in Table A.

Table A – Emissions Unit Inventory [1]

EU ID	EU Description	Make/Model	Fuel	Rating/Max Capacity
8a	Drill Generator #1	MTU 12V4000G73	Diesel	1,105 kW
9a	Drill Generator #2	MTU 12V4000G73	Diesel	1,105 kW
10a	Drill Generator #3	MTU 12V4000G73	Diesel	1,105 kW

Table Notes:

[1] Other emission units already installed at the source are not included in this table.

1. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement emissions unit, including any applicable minor or construction permit requirements**.**

Section 2 Fees

2. 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.

3. Assessable Emissions. The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of

3.1. the stationary source's assessable potential to emit of 671 tpy; or

3.2. the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon credible evidence of actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by the most representative of 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;

d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

4. Assessable Emission Estimates. Emission fees will be assessed as follows:

4.1. no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Suite 303, PO Box 111800, Juneau, AK 99811-1800; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

4.2. if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in Condition 3.1.

Section 3 ORL to Avoid Permit Classifications

5. To avoid classification under 18 AAC 50.306 for NOx, indirect PM-2.5, and ozone (O_3), the Permittee shall limit the total combined emissions of NOx from EU IDs 8a, 9a, and 10a to 56.2 tpy or less as follows:

5.1. Limit the combined hours of operation of EU IDs 8a, 9a, and 10a to no more than 6,800 hours per rolling 12-month period.

a. Install, maintain, and operate an hour meter on each of EU IDs 8a, 9a, and 10a.

b. Record the hour meter reading for each of EU IDs 8a, 9a, and 10a on the last day of each month.

c. No later than the 15th day of each month, calculate and record:

(i) The number of hours each of EU IDs 8a, 9a, and 10a operated during the previous calendar month. If an hour meter is not operational, assume continuous operation for that period.

(ii) The total number of hours each of EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months.

(iii) The combined total number of hours EU IDs 8a, 9a, and 10a operated during the previous 12 consecutive months.

d. Report the values under Condition 5.1.c in each operating report required in Condition 11 for each month of the reporting period.

e. Report in accordance with Condition 10 whenever a limit in Condition 5 or 5.1 is exceeded.

Section 4 Recordkeeping, Reporting, and Certification Requirements

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

6.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if

a. A certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and

b. The person providing the electronic signature has made an agreement with the certifying authority described in Condition 6.1.a that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

7. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original version of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 6.

8. 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, 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.

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

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

9.2. records of all monitoring required by this permit, and information about the monitoring including (if applicable):

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

10. Excess Emissions and Permit Deviation Reports.

10.1. Except as provided in Condition 12 the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. In accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) 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 caused emissions in excess of a technology based emissions standard;

c. report all other excess emissions and permit deviations

(i) within 30 days after the end of the month during which the emissions or deviation occurred, except as provided in Condition 10.1.c(iii); or

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 10.1.c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

10.2. When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or http://dec.alaska.gov/applications/air/airtoolsweb, or, if the Permittee prefers, the form contained in Attachment 2 to this permit. The Permittee must provide all information called for by the form that is used.

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

11. Operating Reports. The Permittee shall submit an operating report by August 1 for the period January 1 through June 30 of the current year and by February 1 for the period July 1 through December 31 of the previous year.

11.1. 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.

11.2. When excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 11.1, the Permittee shall identify

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

e. any corrective action or preventative measures taken and the date of such actions; or

11.3. When excess emissions or permit deviations have already been reported under Condition 10 the Permittee shall cite the date or dates of those reports.

12. Air Pollution Prohibited. No person may permit any emissions 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.

12.1. If emissions present a potential threat to health or safety, the Permittee shall report any such emissions according to Condition 10.

12.2. 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 12.

12.3. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after investigation because of complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 12 or

b. the Department notifies the Permittee that it has found a violation of Condition 12.

12.4. The Permittee shall keep records of

a. the date and 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 12; and

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

12.5. With each operating report under Condition 11 the Permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the Permittee or the Department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

12.6. 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.

Section 5 Standard Permit Conditions

13. The Permittee must comply with each permit term and condition. Non-compliance 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

13.1. an enforcement action; or

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

14. 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.

15. 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.

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

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

18. 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

18.1. enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;

18.2. have access to and copy any records required by this permit;

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

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

Section 6 Permit Documentation

Date	Document Details
September 21, 2017	Application received.
January 25, 2018	email: Response received from Krystin McClure (SLR Consulting) regarding contemporaneous period emissions.
February 13, 2018	email: Response received from Krystin McClure (SLR Consulting) regarding installation and removal dates for the contemporaneous period and hours of operation for contemporaneous period emissions.
February 14, 2018	email: Response received from Krystin McClure (SLR Consulting) regarding installation and removal dates for the contemporaneous period and emissions calculations for the contemporaneous period.
February 16, 2018	email: Response received from Krystin McClure (SLR Consulting) regarding emissions calculations for the contemporaneous period.

Attachment 1 – Complaint Form

Date Time:

Activities Involved:

Provide a description of reported complaint. Attach sheets as necessary.

If applicable, operational conditions which contributed to the complaint:

If applicable, ambient conditions which contributed to the complaint:

If applicable, describe measures taken to immediately address the complaint.

If applicable, describe measures taken to address preventing the condition which generated the complaint.

If applicable, describe any reason that you feel the complaint may not be a violation:

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	Signature	Date

Attachment 2 – Notification Form

Excess Emissions and Permit Deviation Reporting
State of Alaska Department of Environmental Conservation
Division of Air Quality

Stationary Source Name **Air Quality Permit No.**

Company Name **Date**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

End Date _____ / _____ / _____ Time: _____ : _____ (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
☐ Deviation from permit conditions complete Section 2 and certify
☐ Deviation from COBC, CO, or Settlement Agreement Complete Section 2 and certify

Section 1. Excess Emissions

(a) Was the exceedance ☐ Intermittent or ☐ Continuous

(b) Cause of Event (Check one that applies)**:**

☐ 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.

(d) Emission unit(s) Involved:

Identify the emission 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	Emission Unit Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) Type of Incident (please check only one):

☐ Opacity %	☐ Venting (gas/scf)	☐ Control Equipment Down
☐ Fugitive Emissions	☐ Emission Limit Exceeded	☐ Record Keeping Failure
☐ Marine Vessel Opacity	☐ Failure to monitor/report	☐ Flaring
☐ Other:		

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?	☐ YES	☐ NO
Do you intend to assert the affirmative defense of 18 AAC 50.235?	☐ YES	☐ NO

Certify Report (go to end of form)

Section 2. Permit Deviations

(a) Permit Deviation Type (check one only) (check boxes correspond with sections in permit)

☐ Emission Unit Specific
☐ General Source Test/Monitoring Requirements
☐ Recordkeeping/Reporting/Compliance Certification
☐ Standard Conditions Not Included in Permit
☐ Generally Applicable Requirements
☐ Reporting/Monitoring for Diesel Engines
☐ Insignificant Emission Unit
☐ Stationary Source-Wide
☐ Other Section: (title of section and section # of your permit)

(b) Emission unit(s) Involved:
Identify the emission unit 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	Emission Unit 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.

(d) Corrective Actions: Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To submit this report:

1. Fax this form to: 907-451-2187
Or
2. Email to: DEC.AQ.Airreports@alaska.gov
if faxed or emailed,
Or
3. Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643
Or
4. Phone notifications: 907-451-5173
Phone notifications require written follow up report.
Or
5. Submission of information contained in this report can be made electronically at the following website:
http://dec.alaska.gov/Applications/Air/airtoolsweb/Home/Index

If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONSTRUCTION PERMIT

Permit No. 067CP01 June 20, 2003
Project Tracking Number X-161

The Department of Environmental Conservation (department), under the authority of AS 46.14 and 18 AAC 50, issues a construction permit to the permittee, Union Oil Company of California, d.b.a. Unocal, for the Monopod Platform Crane Engines Project at the Monopod Platform.

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

As required by AS 46.14.120(c), the permittee shall comply with the terms and conditions of this construction permit.

[18 AAC 50.320(b), 1/18/97]

_____

John F. Kuterbach, Manager
Air Permits Program

Table of Contents

List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS.....Alaska Statutes
ASTM.....American Society of Testing and Materials
CEMS.....Continuous Emission Monitoring System
C.F.R. .....Code of Federal Regulations
COMS .....Continuous Opacity Monitoring System
EPA .....US Environmental Protection Agency
HAPS .....Hazardous Air Pollutants [hazardous air contaminants as defined in AS 46.14.990(14)]
HHV.....Higher heating value
ID .....Source Identification Number
MACT.....Maximum Achievable Control Technology
NAICS .....North American Industry Classification System
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [as defined in 40 CFR 61]
NSPS.....Federal New Source Performance Standards [as defined in 40 CFR 60]
PS .....Performance specification
PSD .....Prevention of Significant Deterioration
RM .....Reference Method
SIC.....Standard Industrial Classification

Units

acf.....actual cubic foot
Btu.....British Thermal Unit (1 Btu = 1,055 Joules)
dscf.....Dry standard cubic foot
gr. .....grain (1 pound = 7000 grains)
GPH.....gallons per hour
hp.....horsepower (bhp is horsepower at shaft) (1kW = 1,341 hp)
kW.....kilowatts
MM.....million (1 MM Btu = 10^6 Btu)
PPM.....Parts per million
PPMV.....Parts per million volume
TPH.....Tons per hour
TPY .....Tons per year
Wt% .....weight percent

Pollutants

CO.....Carbon Monoxide
H_2S.....Hydrogen Sulfide
NO_X, NO_2.....Oxides of Nitrogen, Nitrogen Dioxide respectively
PM_{10}.....particulate matter with aerodynamic diameter less than 10 microns
SO_2.....Sulfur dioxide
VOC.....volatile organic compound [as defined in 18 AAC 50.990(103)]

Section 1 Identification

Names and Addresses

Permittee:	Union Oil Company of California d.b.a. Unocal P.O. Box 196247 Anchorage Alaska, 99519-6247
Facility:	Monopod Platform
Location:	60° 53’ 49” N, 151° 34’ 45.5” W
Physical Address:	Upper Cook Inlet - Alaska
Owner:	Union Oil Company of California, (operator) and Forest Oil Corporation. Unocal and Forest Oil Corporation are Publicly held corporations.
Operator:	Unocal P.O. Box 196247 Anchorage, AK 99519-6247
Permittee’s Responsible Official	Dale Haines, Alaska Operations Manager Unocal – P.O. Box 196247 Anchorage, AK 99519-6247
Designated Agent:	CT Corporation System 801 West 10th Street, Suite 300 Juneau, Alaska 99801
Facility and Building Contact:	Paul Bartolowits and Paul Delago, Foremen Phone (907) 776-6670 Fax (907) 776-6671
Fee Contact:	David Bailey Union Oil Company of California P.O. Box 196247 Anchorage, AK 99519-6247 (907) 263-7694 dbaily@unocal.com

SIC Code of the Facility: 1311 Crude Petroleum and Natural Gas Production;

NAICS Code: 211111

[18 AAC 50.320(a), 1/18/97]

Section 2 Emission Information and Classification

Emissions of Regulated Air Contaminants, as provided in permittee's application:

Oxides of Nitrogen (NO_X), Sulfur Dioxide (SO_2), Carbon Monoxide (CO), Particulate Matter, and Volatile Organic Compounds (VOC).

Construction Permit Classifications:

Note: Facility Classifications are described under 18 AAC 50.300(b) through (g), modification classifications are described under 18 AAC 50.300(h), and owner requested limits are described under 18 AAC 50.305(a)(1) through (4).

The Monopod Platform Crane Engines Project requires a construction permit because:

a. The facility is classified as a Prevention of Significant Deterioration (PSD) Major Facility under 18 AAC 50.300(c)(1), as the facility has a potential to emit more than 250 tons per year of NO_X and CO; and

b. The owner has requested limits to avoid classification as a PSD significant modification under 18 AAC 50.300(h)(3), as provided by 18 AAC 50.305(a)(4).

[18 AAC 50.320(a)(2), 1/18/97]

Section 3 Construction Permit Source Inventory

1. Authorization. The permittee is authorized to modify and operate the facility in accordance with the construction permit application as may be currently applicable. This permit imposes fuel sulfur and operational limits on the sources listed in Table 1 to protect ambient air quality and avoid PSD preconstruction review.

The sources listed below have specific monitoring, record keeping, or reporting conditions in this construction permit. The source description and rating are given for identification purposes only. The facility equipment inventory is listed in revised Permit No. 067TVP01, issued December 2, 2002.

Table 1: Construction Permit Source Inventory

ID	Tag No.	Source Name	Source Description	Fuel Type	Rating/size	Install Date
13	M-CR-1780	Caterpillar 3406B-DITA Engine	East Crane	Diesel	420 hp	1996
14	M-CR-1790	Detroit Diesel 671 Engine	West Crane	Diesel	230 hp	1997

Section 4 Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations

General Description. This permit contains terms and conditions to ensure that allowable emissions from the Monopod Platform Crane Engines Project will not cause an ambient concentration that exceeds the concentrations established in Table 6 of 18 AAC 50.310(d)(2) at any location that does not or would not meet the ambient air quality standard or maximum allowable ambient concentration.

2. Fuel Oil Sulfur Content: Sources No. 13 and 14. Do not burn fuel oil with sulfur content greater than **0.3 percent** sulfur by weight.

2.1 Record the fuel sulfur, measured in accordance with an appropriate methodology incorporated by reference within fuel specification standard ASTM D 396-92 or D 975-94 for each fuel shipment. Alternatively, provide a copy of the fuel vendor's fuel oil sulfur analysis results based on appropriate ASTM methodology.

2.2 Report the fuel sulfur content of each delivery in the facility operating report required by Condition 51, "Operating Reports," of revised Permit No. 067TVP01.

3. Fuel Consumption Cap: Sources No. 13 and 14

3.1 Limit operations of Source No. 13, East Crane Engine, to 66,900 gallons fuel oil per 12-month rolling period.

3.2 Limit operations of Source No. 14, West Crane Engine, to 24,400 gallons fuel oil per 12-month rolling period.

3.3 Record fuel consumption by Sources No. 13 and 14 as follows.

a. When 12-month rolling total fuel consumption is less than 90% of total allowable fuel consumption, record fuel consumption no less than once each month for each unit.

b. When rolling total fuel consumption is greater than 90% of the allowable limit, record fuel consumption each week.

3.4 Include monthly 12-month rolling totals for each of sources No. 13 and 14 in the facility operating report required by Condition 51, "Operating Reports," of revised Permit No. 067TVP01.

Section 5 State Emission Standards

4. Visible Emissions. Visible emissions from the sources listed in Table 1: Construction Permit Source Inventory shall meet the requirements of Condition 5, "Visible Emissions," of revised Permit No. 067TVP01.

4.1 Monitor, record and report according to revised Permit No. 067TVP01, Section 13, Visible Emissions and Particulate Matter Monitoring Plan.

[18 AAC 50.055(a)(1), 8/15/02]
[18 AAC 50.320(a)(2)(A-E), 8/15/02]

5. Particulate Matter. Particulate matter emissions from the sources listed in Table 1: Construction Permit Source Inventory shall meet the requirements of Condition 6, "Particulate Matter," of revised Permit No. 067TVP01.

5.1 Monitor, record and report according to revised Permit No. 067TVP01, Section 13, Visible Emissions and Particulate Matter Monitoring Plan.

[18 AAC 50.055(b)(1), 8/15/02]
[18 AAC 50.320(a)(2), 8/15/02]
[18 AAC 50.320(a)(2)(A-E), 8/15/02]

6. Sulfur Compound Emissions. Sulfur compound emissions, expressed as SO2, from the sources listed in Table 1: Construction Permit Source Inventory shall meet the requirements of Condition 7, "Sulfur Compound Emissions," of revised Permit No. 067TVP01.

6.1 Compliance with this requirement is assured by using a grade of fuel gas with an H_2S content that is not to exceed 4,345 PPM or fuel oil with a sulfur content not to exceed 0.75% by weight.

6.2 Monitor, record, and report according to Condition 7, *"Sulfur Compound Emissions,"* of revised Permit No. 067TVP01.

[18 AAC 50.055(c), 8/15/02]
[18 AAC 50.320(a)(2), 8/15/02]
[18 AAC 50.320(a)(2)(A-E), 8/15/02]

Section 6 Permit Documentation

May 17, 2002	Received Construction Permit application for Monopod Crane Engines.
June 5, 2002	Email from Jim Baumgartner (ADEC) to Janet Bounds (Unocal) Unocal Monopod Construction Permit Application Completeness issues.
June 17, 2002	Letter from Dale A. Haines (Unocal) to Jim Baumgartner (ADEC) Response to June 5 email from Jim Baumgartner to Janet Bounds.
February 4, 2003	Letter from Dale Haines (Unocal) to Jim Baumgartner (ADEC). Certification that Sources No. 1 and 2 are physically constrained from operating simultaneously.
April 25, 2003	Letter from Janet Bounds (Unocal) to Jim Baumgartner (ADEC). Comments on preliminary construction permit 067CP01. Request to postpone effective date of construction permit to revision date of operating permit 067TVP01 Revision 1.
April 28, 2003	Letter from Daniel Bevington (Kenai Peninsula Borough) to Jim Baumgartner (ADEC) notifying the department that the Kenai Peninsula Borough offers no objection to the proposed construction permit 067CP01 and revised operating permit 067TVP01 Revision 1.