



Hilcorp Alaska, LLC

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Anchorage, AK 99503

Phone: 907/777-8300
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October 18, 2024

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

Subject: Hilcorp Alaska, LLC – Anna Platform
Air Quality Operating Permit No. AQ0062TVP04 Application for Renewal

Dear Application Intake:

Please find attached the Hilcorp Alaska, LLC (Hilcorp) application for renewal of Air Quality Operating Permit No. AQ0062TVP04 for Anna Platform. Under Condition 90 of the permit, an application must be submitted no sooner than October 29, 2023 and no later than October 29, 2024. Hilcorp understands that submittal by the October 29, 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 Anna Platform is in compliance. Hilcorp will meet new requirements that become effective during the permit term on a timely basis.

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

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

Sincerely,

A handwritten signature in blue ink that reads "Trudi Hallett".

Trudi Hallett
Asset Team Lead
Hilcorp Alaska, LLC

Enclosure: Anna 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
Jeanette Brena, Boreal

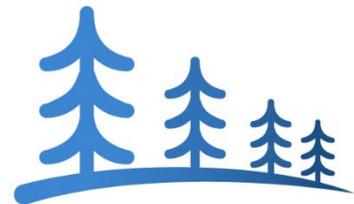


Hilcorp Alaska, LLC

**Anna Platform
Application for Renewal of an Air Quality
Operating Permit**

Prepared for:
Hilcorp Alaska, LLC

October 2024



B O R E A L

Anna 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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Permit

Operating Permit No. AQ0062TVP04



Section A

Stationary Source

Form A1:	Stationary Source (General Information)
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Attachment A-1:	Compliance Certification
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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: Anna Platform	
3. Stationary Source Physical Address:	
Physical Address Line 1: Upper Cook Inlet	
Physical Address Line 2	
City: Cook Inlet	State: AK Zip Code:
4. Location:	Latitude: 60° 58' 36.98" North Longitude: 151° 18' 47.99" 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.: AQ0062TVP04	Expiration Date: April 29, 2025
7. Does this application contain confidential data?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. APPLICATION IS BEING MADE FOR:	
<input type="checkbox"/> Initial Title V Permit for this Stationary Source <input type="checkbox"/> Modify Title V Permit (currently permitted) <input checked="" type="checkbox"/> 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: Please see attached sheet.	Designated Agent:
Name/Title:	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: State: Zip Code:	City: Juneau State: AK Zip Code: 99801
Stationary Source and Building Contact:	Fee Contact:
Name/Title: Drew Anderson / Environmental Engineer	Name/Title: Hilcorp Alaska, LLC / Accounts Payable
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
Phone: (907) 777-8488 Email: ananderson@hilcorp.com	Phone: Email:
Permit Contact:	Person or Firm that Prepared Application:
Name/Title: Drew Anderson / 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: jbreana@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): <i>Trudi Hallett</i>	Date: <i>10/18/2024</i>

FORM A1
Stationary Source (General Information)

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) Jill Fisk
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: AQ0062TVP04

1.	Permit Contact: Name	Drew Anderson
	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 Forms B, D, and E3.
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.

FORM A4
Title V Air Operating Permit Renewal Application Information

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 B and E4.

FORM A4
Title V Air Operating Permit Renewal Application Information

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.
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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)

10/18/2024

Date

Attachment A-1: Compliance Certification
 Anna Platform Operating Permit No. AQ0062TVP04
 Title V Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
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 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B 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 2 through 4 and 7 through 13, burn only gas as fuel. Monitoring for these emissions units shall consist of a statement in each operating report under Condition 82 indicating whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 81 if any fuel other than gas is burned.	In Compliance	Records Review and Field Verification/Interview
	1.2. For EU ID 5, burn only gas as the primary fuel. Monitoring for this emissions unit shall consist of a statement in each operating report required under Condition 82 indicating whether this emissions unit burned gas as the primary fuel during the period covered by the report. If EU ID 5 operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 13.	In Compliance	Records Review
	1.3. For each of EU IDs 14 through 18, as long as the emissions unit does not exceed the significant emissions thresholds listed in 18 AAC 50.326(e), monitoring shall consist of an annual compliance certification under Condition 83 for the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 82 if any of EU IDs 14 through 18 exceeds the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.	In Compliance	Records Review
	1.4. For EU ID 19, monitor, record and report in accordance with Condition 5.	In Compliance	Records Review
	1.5. For each of EU IDs K6 and K7, the Permittee shall monitor, record, and report as follows: a. Within two days of initial startup after each relocation to the Anna Platform, the Permittee shall observe exhaust, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations. b. Record and report in accordance with Conditions 3 and 4.	In Compliance	Field Verification/Interview
Visible Emissions Monitoring, Recordkeeping, and Reporting (MR&R)			
2	Visible Emissions Monitoring. When required by Condition 1.3, the Permittee shall observe the exhaust of each of EU IDs 14 through 18 for visible emissions using the Method 9 Plan under Condition 2.2.	In Compliance	Records Review
	2.1. 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.	In Compliance	Records Review
	2.2. Method 9 Plan. For all observations in this plan, observe exhaust, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations. a. First Method 9 Observation. Except as provided in Condition 2.1, observe exhausts of EU IDs 14 through 18 according to the following criteria: (i) Except as provided in Conditions 2.2.a(ii) through 2.2.a(iv), for any of EU IDs 14 through 18, observe exhaust within six months after the issue date of this permit. (ii) In the event of replacement of any of EU IDs 14 through 18 during the term of this permit, observe exhaust within 30 days of startup of the newly installed emissions units. (iii) For any of EU IDs 14 through 18, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which any of the significant emissions thresholds in 18 AAC 50.326(e) was exceeded. (iv) For any of EU IDs 14 through 18 with intermittent operations, within 30 days of the unit's next scheduled operation. b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.2.a, perform 18-minute observations at least once in each calendar month that an emissions unit operates; or for an emissions unit with intermittent operations, at least once in each calendar month that the emissions unit is scheduled to operate. c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under Condition 2.2.b, unless a six-consecutive minute average opacity is greater than 15 percent and one or more observations are greater than 20 percent, perform observations (i) within six months after the preceding observation, or (ii) for an emissions 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 observations under Condition 2.2.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform observations (i) within twelve months after the preceding observation; or (ii) for an emissions 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-consecutive-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 observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.2.b, and continue monitoring in accordance with the Method 9 Plan.	In Compliance	Records Review

Attachment A-1: Compliance Certification
 Anna Platform Operating Permit No. AQ0062TVP04
 Title V Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
3	Visible Emissions Recordkeeping. The Permittee shall keep records as follows: 3.1. For all Method 9 observations under Conditions 1.5 and 2.2, a. the observer shall record the following: (i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in Section 11; (ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating 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 Form in Section 11; (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; and (vi) the date and time of initial startup of EU IDs K6 and K7 after each relocation to the Anna Platform. b. To determine the six-consecutive-minute average opacity, (i) divide the observations recorded on the record sheet into sets of 24 consecutive observations; (ii) sets need not be consecutive in time and in no case shall two sets overlap; (iii) for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; and (iv) record the average opacity on the sheet. c. Calculate and record the highest six-consecutive- and 18-consecutive-minute average opacities observed. 3.2. The records may be kept in electronic format.	In Compliance	Records Review
4	Visible Emissions Reporting. The Permittee shall report visible emissions as follows: 4.1. Include in each operating report under Condition 82 for the period covered by the report: a. for all Method 9 observations under Conditions 1.5 and 2.2: (i) copies of the observation results (i.e. opacity observations) for each emissions unit, except for the observations the Permittee has already supplied to the Department; and (ii) a summary to include: (A) number of days observations were made; (B) highest six-consecutive- and 18-consecutive-minute average opacities; (C) dates when one or more observed six-consecutive-minute averages were greater than 20 percent; (iii) for EU IDs K6 and K7, the dates and times recorded under Condition 3.1.a(vi); and b. a summary of any monitoring or recordkeeping required under Conditions 1.5, 2 and 3 that was not done. 4.2. Report under Condition 81: a. the results of Method 9 observations that exceed an average of 20 percent opacity for any six-consecutive-minute period; and b. if any monitoring under Conditions 1.5 and 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 EU ID 19, 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. 5.3. The records required by Condition 5.2 may be kept in electronic format. 5.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. 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 82 an explanation of the reason the event was not monitored. 5.5. Attach copies of the records required by Condition 5.2 with the operating report required by Condition 82 for the period covered by that report. 5.6. Report under Condition 81 whenever the opacity standard in Condition 1 is exceeded.	In Compliance	Records Review
Particulate Matter (PM) Emissions Standards			
6	Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.	In Compliance	Records Review

Attachment A-1: Compliance Certification
 Anna Platform Operating Permit No. AQ0062TVP04
 Title V Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
6	<p>6.1. For EU IDs 2 through 4 and 7 through 13, comply with Condition 1.1.</p> <p>6.2. For EU ID 5, the Permittee shall monitor, record and report according to Condition 1.2.</p> <p>6.3. For each of EU IDs 14 through 18, as long as the emissions unit does not exceed the significant emissions thresholds listed in 18 AAC 50.326(e), monitoring shall consist of an annual compliance certification under Condition 83 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 82 if any of EU IDs 14 through 18 exceeds the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 7 through 9 for the remainder of the permit term for that emissions unit.</p> <p>6.4. For the flare, EU ID 19, monitor, record and report in accordance with Condition 5.</p> <p>6.5. For each of EU IDs K6 and K7, the Permittee shall monitor, record, and report in accordance with Conditions 10 through 12.</p>	In Compliance	Records Review
PM MR&R			
7	<p>Particulate Matter Monitoring. The Permittee shall conduct source tests on the diesel engines, EU IDs 14 through 18 (when required by Condition 6.3), and on the diesel-fired turbine EU ID 5 (when required by Condition 13.3.a), to determine the concentration of PM in the exhaust of each of the emissions units as follows:</p> <p>7.1. If the result of any Method 9 observation conducted under Condition 2.2 for any of EU IDs 14 through 18 is greater than the criteria of Conditions 7.2.a or 7.2.b, or if the Method 9 observation conducted under Condition 13.3 for EU ID 5 exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either:</p> <p>a. make repairs and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 CFR 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 7.2; or</p> <p>b. except as exempted under Condition 7.4, conduct a PM source test according to requirements set out in Section 6.</p> <p>7.2. Conduct the PM source test or make repairs according to Condition 7.1, if any Method 9 observation under Condition 2.2 results in an 18-minute average opacity greater than</p> <p>a. 20 percent for an emissions unit with an exhaust stack diameter that is equal to or greater than 18 inches; or</p> <p>b. 15 percent for an emissions unit with an exhaust stack diameter that is less than 18 inches, unless the Department has waived this requirement in writing.</p> <p>7.3. During each one-hour PM source test run under Condition 7.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.</p> <p>7.4. The PM source test requirements in Condition 7.1.b are waived for an emissions unit if a source test on that unit has shown compliance with the PM standard during this permit term.</p>	In Compliance	Records Review
8	<p>PM Recordkeeping. The Permittee shall keep records of the results of any PM source test and visible emissions observations conducted under Condition 7.</p>	In Compliance	Records Review
9	<p>Particulate Matter Reporting. The Permittee shall report as follows:</p> <p>9.1. Report under Condition 81</p> <p>a. the results of any PM source test that exceed the PM emissions limit; or</p> <p>b. if the requirements under Condition 7.1 were triggered and the Permittee did not comply on time with either Condition 7.1.a or 7.1.b. Report the deviation within 24 hours of the date compliance with Condition 7.1 was required.</p> <p>9.2. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 7.2.a or 7.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 7.2.</p> <p>9.3. In each operating report under Condition 82, include for the period covered by the report:</p> <p>a. a summary of the results of any PM testing and visible emissions observations under Condition 7; and</p> <p>b. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 7.2, if they were not already submitted.</p>	In Compliance	Records Review
PM Monitoring for Liquid Fuel-Burning Boilers and Heaters			
10	<p>PM Monitoring. The Permittee shall demonstrate compliance with Condition 6 by conducting PM source tests on any of EU IDs K6 and K7, as follows:</p> <p>10.1. Except as exempted under Condition 10.3, conduct a PM source test according to the requirements in Section 6 no later than 90 calendar days after the Method 9 visible emissions observations conducted under Condition 1.5 showed an exceedance of the limit in Condition 1.</p> <p>10.2. During each one-hour PM source test run under Condition 10.1, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.</p> <p>10.3. The PM source test requirement in Condition 10.1 is waived for an emissions unit if:</p> <p>a. a source test on that unit has shown compliance with the PM standard during this permit term, or</p> <p>b. corrective action was taken to reduce visible emissions and an 18-minute visible emissions observation is conducted within 30 days to show that the excess visible emissions described in Condition 10.1 no longer occur.</p>	In Compliance	Field Verification/Interview
11	<p>PM Recordkeeping. The Permittee shall keep records of the results of any PM source test and visible emissions observations conducted under Condition 10.</p>	In Compliance	Records Review

Attachment A-1: Compliance Certification
 Anna Platform Operating Permit No. AQ0062TVP04
 Title V Renewal Application

Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
12	PM Reporting. The Permittee shall report as follows:	In Compliance	Records Review
	12.1. In each operating report required by Condition 82, include for the period covered by the report a summary of the results of any source test and visible emissions observations conducted under Condition 10. 12.2. Report in accordance with Condition 81 any time the results of a source test exceed the PM emission standard in Condition 6.	In Compliance	Records Review
VE & PM MR&R for Dual Fuel-Fired Emissions Unit			
13	The Permittee shall monitor, record and report the monthly hours of operation of EU ID 5 when operating on a back-up liquid fuel.	In Compliance	Records Review
13	13.1. If EU ID 5 does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual compliance certification under Condition 83. 13.2. For EU ID 5, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 13.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel, or during the next scheduled operation on back-up liquid fuel. 13.3. When required to do so by Condition 13.2, observe the emissions unit exhaust, following 40 CFR 60, Appendix A-4 Method 9 for 18-minutes to obtain 72 consecutive 15-second opacity observations. a. If the observation exceeds the standard in Condition 1, monitor as described in Condition 7. b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year. 13.4. Keep records and report in accordance with Conditions 3, 4, 8, and 9, as applicable. 13.5. Report under Condition 81 if the Permittee fails to comply with any of Conditions 13.2, 13.3 or 13.4.	In Compliance	Records Review
Sulfur Compound Emission Standards Requirements			
14	Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO ₂ , from EU IDs 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B to exceed 500 ppm averaged over three hours.	In Compliance	Records Review
	14.1. For EU ID 5 (when burning diesel) and EU IDs 14 through 18: a. The Permittee shall do one of the following for each shipment of fuel: (i) If the fuel grade requires a sulfur content less than 0.5 wt%S _{fuel} , keep receipts that specify fuel grade and amount; or (ii) If the fuel grade does not require a sulfur content less than 0.5 wt%S _{fuel} , keep receipts that specify fuel grade and amount and (A) test the fuel for sulfur content; or (B) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent. b. Fuel testing under Condition 14.1 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1). c. 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 the material balance calculation in Section 12 or Method 19 of 40 CFR 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a). d. The Permittee shall report as follows: (i) If SO ₂ emissions calculated under Condition 14.1.c exceed 500 ppm, the Permittee shall report under Condition 81. When reporting under this condition, include the calculation under Condition c. (ii) The Permittee shall include in the operating report required by Condition 82 (A) a list of the fuel grades received at the stationary source during the reporting period; (B) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and (C) for fuel with a sulfur content greater than 0.75 percent, the calculated SO ₂ emissions in ppm	In Compliance	Records Review
	14.2. For EU IDs K6 and K7, the Permittee shall demonstrate compliance with the SO ₂ standard in Condition 14 by complying with the fuel sulfur limit in Condition 15 and the associated monitoring, recordkeeping, and reporting requirements under Condition 15.1.	In Compliance	Field Verification/Interview
	14.3. The Permittee shall analyze a representative sample of the fuel 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 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1). 14.4. The Permittee shall keep records of the sulfur content analysis required under Condition 14.3. 14.5. The Permittee shall include copies of the records required by Condition 14.4 with the operating report required by Condition 82 for the period covered by the report. 14.6. The Permittee shall report as excess emissions, in accordance with Condition 81, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 14.	In Compliance	Records Review

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No.	Summary/Description		
Pre-Construction Permit Requirements			
15	<p>Liquid Fuel Sulfur Content Limit, Drill Rig EUs. To protect the 1-hour, 3-hour, 24-hour and annual SO₂ Alaska AAAQS, the Permittee shall limit the liquid fuel sulfur content to no more than 15 ppmw for all Kuukpik V Drill Rig emissions units listed in Table B.</p> <p>15.1. The Permittee shall do one of the following for each shipment of fuel for the Kuukpik V Drill Rig:</p> <p>a. If the fuel grade requires a sulfur content of 15 ppmw or less, keep receipts that specify the fuel grade and amount of fuel; or</p> <p>b. If the fuel grade does not require a sulfur content of 15 ppmw or less, keep receipts that specify the fuel grade and amount of fuel and:</p> <p>(i) test the fuel for sulfur content; or</p> <p>(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.</p> <p>c. Fuel testing under Condition 15 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).</p> <p>d. The Permittee shall include in the operating report required by Condition 82:</p> <p>(i) a list of the fuel grades received and used by the Kuukpik V Drill Rig during the reporting period; and</p> <p>(ii) copies of any test results obtained in accordance with Condition 15.1.b.</p> <p>e. If the sulfur content of any liquid fuel exceeds the limit in Condition 15, the Permittee shall report in accordance with Condition 81.</p>	In Compliance	Field Verification/Interview
16	<p>Drill Rig Configuration Limits. To protect the annual NO₂, 24-hour PM-10, annual PM2.5, and 1-hour, 3-hour, 24-hour, and annual SO₂ AAAQS, the Permittee shall comply with the following:</p> <p>16.1. Limit the total rated capacity of the Kuukpik V Drill Rig nonroad engines (NREs) to no more than 3,071 Hp.</p> <p>a. Any time a change is made to the Kuukpik V nonroad engine emissions unit inventory, calculate and record the total nonroad engine rated capacity (Hp).</p> <p>b. Include the total nonroad engine rated capacity (Hp) in each operating report required under Condition 82.</p> <p>c. Report in accordance with Condition 81 any time the total nonroad engine rated capacity (Hp) exceeds the limit in Condition 16.1.</p> <p>16.2. Construct and maintain vertical, uncapped exhaust stacks for all Kuukpik V Drill Rig EUs, except as noted below:</p> <p>a. the exhaust stacks for EU IDs K3 and K4 (light plant generators) may be tilted to no more than 45-degrees from vertical;</p> <p>b. the exhaust stacks for EU IDs K6 and K7 (boilers) may be capped; and</p> <p>c. the exhaust stacks for EU IDs K1, K2, K3, K4 and K5 may have flapper valve rain covers, or other similar design, that does not hinder the exhaust plume momentum.</p> <p>16.3. Report in accordance with Condition 81 for any stack configuration not allowed by Condition 16.2.</p>	In Compliance	Field Verification/Interview
Insignificant Emission Units			
17	<p>For emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:</p> <p>17.1. 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.</p> <p>17.2. 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.</p> <p>17.3. Sulfur Standard. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.</p> <p>17.4. General MR&R for Insignificant Emissions Units. The Permittee shall comply with the following:</p> <p>a. Submit the certification of compliance of Condition 83 based on reasonable inquiry;</p> <p>b. Comply with the requirements of Condition 64;</p> <p>c. Report in the operating report required by Condition 82 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds; and</p> <p>d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 17.1, 17.2, and 17.3.</p>	In Compliance	Field Verification/Interview

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Section 4. Federal Requirements			
NSPS Subpart A - General Provisions			
18	<p>NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility or existing facility regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator written notification or, if acceptable to both the EPA and the Permittee, electronic notification, as follows:</p> <p>18.1. a notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form;</p> <p>18.2. a notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date;</p> <p>18.3. a notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include:</p> <p>a. information describing the precise nature of the change,</p> <p>b. present and proposed emission control systems,</p> <p>c. productive capacity of the facility before and after the change, and</p> <p>d. the expected completion date of the change; and</p> <p>18.4. a notification of any proposed replacement of components 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:</p> <p>a. the name and address of owner or operator,</p> <p>b. the location of the existing facility,</p> <p>c. a brief description of the existing facility and the components that are to be replaced,</p> <p>d. a description of the existing and proposed air pollution control equipment,</p> <p>e. an estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,</p> <p>f. the estimated life of the existing facility after the replacements, and</p> <p>g. a discussion of any economic or technical limitations the facility may have in complying with the applicable performance standards after the proposed replacements.</p>	In Compliance	Records Review
19	<p>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 3 through 5, any malfunctions of the associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 3 through 5 is inoperative.</p>	In Compliance	Field Verification/Interview
20	<p>NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit an excess emissions and monitoring systems performance (EEMSP) report and/or summary report form (see Condition 21) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:</p> <p>20.1. The date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.</p> <p>20.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 3 through 5; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.</p> <p>20.3. 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.</p> <p>20.4. 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.</p>	In Compliance	Records Review
21	<p>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 CFR 60.7 (see Attachment A to the Statement of Basis) for each pollutant monitored for EU IDs 3 through 5. 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 or the EPA, as follows:</p> <p>21.1. 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 20 is requested, or</p> <p>21.2. 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 report described in Condition 20.</p>	In Compliance	Records Review
22	<p>NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to 40 CFR 60.8 and Section 6 on any affected facility at such times as may be required by the Administrator, and shall provide the Department and EPA with a written report of the results of the source test.</p>	In Compliance	Records Review

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23	NSPS Subpart A Good Air Pollution Control Practice (GAPCP). At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 3 through 5, 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 3 through 5.	In Compliance	Records Review
24	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 27 and 29, nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 3 through 5 would have been in compliance with applicable requirements of 40 CFR Part 60 if the appropriate performance or compliance test or procedure had been performed.	In Compliance	Advisory Provision
25	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 27, 29, and 34. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere	In Compliance	Records Review
NSPS Subpart GG – Turbines, EU IDs 3, 4, and 5			
26	NSPS Subpart GG Applicability. For EU IDs 3, 4, and 5 listed in Table A, the Permittee shall comply with the applicable requirements for stationary gas turbines, which commenced construction, modification, or reconstruction after October 3, 1977, with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour based on the lower heating value of the fuel fired.	In Compliance	Records Review
	26.1. Emergency Fuel Exemption. Stationary gas turbines when fired with natural gas are exempt from NSPS Subpart GG NO _x standards under 40 CFR 60.332(a)(2), set out under Condition 27, when being fired with an emergency fuel. The dual fuel-fired turbine, EU ID 5, meets these criteria. The Permittee shall a. include in the report required in Condition 20 each period during which an exemption is in effect; and b. report for each period, the type, reasons, and duration of the firing of the emergency fuel.	In Compliance	Records Review
27	NSPS Subpart GG NO_x Standard. The Permittee shall not allow the exhaust gas concentration of NO _x , on a dry exhaust basis at 15 percent oxygen (O ₂) and ISO standard day conditions, from EU IDs 3, 4, and 5 listed in Table A to exceed 150 ppmv.	In Compliance	Records Review
28	NSPS Subpart GG NO_x MR&R Requirements. The Permittee shall monitor, record, and report compliance with the respective Subpart GG NO _x standard under Condition 27, as follows: 28.1. Monitoring. The Permittee shall comply with the following: a. Periodic Testing. For each turbine subject to Condition 27 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 28.1.a(i) or 28.1.a(ii). (i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the most stringent NO _x limit shown in Condition 27, the Permittee shall conduct a NO _x and O ₂ source test under 40 CFR 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, within the first applicable criteria below: (A) Within 5 years of the latest performance test, or (B) Within 1 year of the effective date of this permit if the last source test occurred greater than five years prior to effective date of this permit and the 400-hour threshold was triggered within 6 months of the permit's effective date, or (C) Within 1 year after exceeding 400 hours of operation in a 12-month period if the last source test occurred greater than 4 years prior to the exceedance. (ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the most stringent NO _x limit shown in Condition 27, the Permittee shall conduct a NO _x and O ₂ source test under 40 CFR 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the most stringent NO _x limit shown in Condition 27.	In Compliance	Records Review

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28	<p>b. Substituting Test Data. The Permittee may use results of a source test completed under Condition 28.1.a performed on only one of a group of turbines to satisfy the requirements of the condition for the other turbines in the group if</p> <p>(i) the Permittee demonstrates that test results are less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 27, and are projected under Condition 28.1.c to be less than or equal to 90 percent of the most stringent limit at maximum load;</p> <p>(ii) for any source test conducted after the effective date of this permit, the Permittee identifies in a source test plan under Condition 73</p> <p>(A) the turbine to be tested;</p> <p>(B) the other turbines in the group that are to be represented by the test; and</p> <p>(C) why the turbine to be tested is representative, including that each turbine in the group</p> <p>(1) is located at a stationary source operated and maintained by the Permittee;</p> <p>(2) is tested under close to identical ambient conditions;</p> <p>(3) is the same make and model and has identical injectors and combustor; and</p> <p>(4) uses the same fuel type from the same supply origin.</p> <p>(iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the most stringent NO_x limit shown in Condition 27.</p>	In Compliance	Records Review
	<p>c. Load. The Permittee shall comply with the following:</p> <p>(i) Conduct all tests under Condition 28.1 in accordance with 40 CFR 60.335, except as otherwise approved in writing by the Department or by EPA if the circumstances of the Department or EPA approval are still valid at the time. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.</p> <p>(ii) Demonstrate in the source test plan whether the test is scheduled when maximum NO_x emissions are expected.</p> <p>(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,</p> <p>(A) for each such turbine the Permittee shall provide to the Department as an attachment to the source test report</p> <p>(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</p> <p>(2) a demonstration based on the additional test information that projects the test results from Condition 28.1 to predict the highest load at which emissions will comply with the limit in Condition 27;</p> <p>(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 27;</p>	In Compliance	Records Review
	<p>(C) the Permittee shall comply with a written finding prepared by the Department that</p> <p>(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,</p> <p>(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</p> <p>(3) the Permittee must retest during a period of greater expected demand on the turbine, and</p> <p>(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 28.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 28.1.c(iii)(C) and</p> <p>(iv) In order to perform a source test required under Condition 28.1, the Permittee may operate a turbine at a higher load than that prescribed by Condition 28.1.c(iii).</p> <p>(v) For the purposes of Conditions 28.1 through 28.3, maximum load means the hourly average load that is the smallest of</p> <p>(A) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions;</p> <p>(B) the highest load allowed by an enforceable condition that applies to the turbine; or</p> <p>(C) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.</p>	In Compliance	Records Review

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28	<p>28.2. Recordkeeping. The Permittee shall keep records as follows:</p> <p>a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 28.1.c(iii) does not show compliance with the NO_x limit in Condition 27 at maximum load.</p> <p>(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.</p> <p>(ii) Records in Condition 28.2.a shall be hourly or otherwise as approved by the Department.</p> <p>(iii) Within one month after submitting a demonstration under Condition 28.1.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 28.1.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how load or load surrogates will be measured, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.</p> <p>b. For any turbine subject to Condition 27, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.</p>	In Compliance	Records Review
	<p>28.3. Reporting. The Permittee shall report as follows:</p> <p>a. In each operating report under Condition 82 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 28.1.c(iii)</p> <p>(i) the load limit; (ii) the turbine identification; and (iii) the highest load recorded under Condition 28.2.a during the period covered by the operating report.</p> <p>b. In each operating report under Condition 82 for each turbine for which Condition 28.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify</p> <p>(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.</p> <p>c. The Permittee shall report under Condition 81 if</p> <p>(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 28.1.a(i) or 28.1.a(ii) but not performed, or (iii) the turbine was operated at a load exceeding that allowed by Conditions 28.1.c(iii)(B) and 28.1.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.</p>	In Compliance	Records Review
29	<p>NSPS Subpart GG SO₂ Standard. For EU IDs 3, 4, and 5, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 wt%_{S_{fuel}} (8000 ppmw).</p>	In Compliance	Records Review
30	<p>NSPS Subpart GG SO₂ MR&R Requirements. The Permittee shall monitor, record, and report compliance with the applicable Subpart GG SO₂ standard in Condition 29, as follows:</p> <p>30.1. Monitoring. The Permittee shall monitor compliance with the Subpart GG SO₂ standard in Condition 29, as follows:</p> <p>a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Condition 30.1.b. Determine the sulfur content of the fuel 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), the Permittee may use ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 CFR 60.17), which measure the major sulfur compounds.</p> <p>b. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee shall use the following source of information to make the required demonstration:</p> <p>(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 CFR 75, Appendix D, Section 2.3.1.4 or 2.3.2.4 is required.</p> <p>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.</p>	In Compliance	Records Review

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30	<p>d. The frequency of determining the sulfur content of the fuel is as follows:</p> <p>(i) <i>Fuel oil</i>. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).</p> <p>(ii) <i>Gaseous fuel</i>. 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.</p> <p>(iii) <i>Custom schedules</i>. Notwithstanding the requirements of Condition 30.1.d(ii), 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 CFR 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 29. The two custom sulfur monitoring schedules set forth in 40 CFR 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.</p>	In Compliance	Records Review
	<p>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:</p> <p>a. For liquid fuels, use ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see 40 CFR 60.17); or</p> <p>b. 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 CFR 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.</p> <p>c. 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</p> <p>30.3. Recordkeeping. The Permittee shall keep records as required by Conditions 30.1 and 30.2, and in accordance with Condition 77.</p>	In Compliance	Records Review
	<p>30.4. Reporting. The Permittee shall report as follows:</p> <p>a. For each affected unit monitored periodically to determine the fuel sulfur content under Condition 30.1.a, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c) as summarized in Condition 20, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Condition 20, periods of excess emissions and monitor downtime that shall be reported are defined as follows:</p> <p>(i) For samples of gaseous fuel obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.</p> <p>(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.</p> <p>b. If electing to comply with Condition 30.1.b, the Permittee shall include with the operating report under Condition 82 a certified statement indicating that the fuel gas combusted at the stationary source meets the definition of natural gas in 40 CFR 60.331(u), pursuant to 40 CFR 60.334(h)(3).</p>	In Compliance	Records Review
NSPS Subpart III – Compression Ignition Internal Combustion Engines (CI ICE), EU ID 16			
31	<p>NSPS Subpart III Applicability and General Compliance Requirements. For EU ID 16 listed in Table A, the Permittee shall comply with the applicable requirements for stationary CI ICE located in remote areas of Alaska whose construction commences after July 11, 2005 where the stationary CI ICE is manufactured after April 1, 2006 and is not a fire pump engine.</p> <p>31.1. For EU ID 16, the Permittee shall comply with the applicable provisions of 40 CFR 60 Subpart A as specified in Table 8 to Subpart III, and applicable provisions of Subpart III as specified in Conditions 32 through 36.</p>	In Compliance	Records Review
32	<p>NSPS Subpart III GAPCP. Except as permitted under Condition 32.1, the Permittee shall operate and maintain EU ID 16 and control device according to the manufacturer's written instructions, may change only those emission-related settings that are permitted by the manufacturer, and shall meet the requirements of Condition 34. In addition, the Permittee shall operate and maintain EU ID 16 that achieves the emissions standards as required in Condition 34 over the entire life of the engine.</p>	In Compliance	Records Review

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32	32.1. If the Permittee does not install, configure, operate, and maintain EU ID 16 and control devices according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: a. Keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. b. In addition, conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. c. Conduct performance tests and meet the not-to-exceed standards in accordance with the applicable requirements indicated in 40 CFR 60.4212(a) and (c).	In Compliance	Records Review
33	NSPS Subpart IIII Fuel Requirements. For EU ID 16, the Permittee is exempt from the fuel requirements of 40 CFR 60.4207, and may use fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. 33.1. The sulfur content of the used lubricating oil must be less than 200 ppm. 33.2. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.	In Compliance	Records Review
34	NSPS Subpart IIII Emission Standards. The Permittee shall comply with the following emission standards: 34.1. Exhaust emissions from EU ID 16 (stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska) shall not exceed the following applicable exhaust emission standards (Tier 1 standards for Nonroad Engines): a. 1.3 g/kW-hr (1.0 g/Hp-hr) for HC b. 9.2 g/kW-hr (6.9 g/Hp-hr) for NO _x ; c. 11.4 g/kW-hr (8.5 g/Hp-hr) for CO; and d. 0.54 g/kW-hr (0.40 g/Hp-hr) for PM.	In Compliance	Records Review
35	NSPS Subpart IIII Monitoring and Recordkeeping. The Permittee shall comply with the following: 35.1. For EU ID 16, demonstrate compliance with the emission standards by keeping records of engine manufacturer data indicating compliance with the applicable emission standards in Condition 34. 35.2. For records of compliance with the fuel requirements under Condition 33.1, keep records of receipts that specify the diesel fuel grade and amount received. 35.3. If using fuels mixed with used lubricating oil as specified in Condition 33, comply with the following: a. Determine that the used oil to be burned for energy recovery meets the fuel specifications of 40 CFR 279.11 and the sulfur content limit in Condition 33.1 by performing approved analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. b. Keep records of the following: (i) copies of analyses of the used oil (or other information used to make the compliance determination in Condition 35.3.a) for three years; (ii) the amount of the used lubricating oil to be blended; (iii) the amount of other distillate fuel oil to be mixed with the used lubricating oil; and (iv) the ratio of the lubricating oil to the total fuel blend.	In Compliance	Records Review
36	NSPS Subpart IIII Reporting. The Permittee shall report as follows: 36.1. Include with the operating report required under Condition 82 a copy of the records required in Conditions 35.2 and 35.3.b for the period covered by the report. 36.2. Report in accordance with Condition 81 if any of the requirements in Conditions 31 through 35 and 37 was not met.	In Compliance	Records Review
37	NSPS Subpart IIII Deadline for Importing or Installing Stationary CI ICE in Previous Model Years. The Permittee shall comply with the following: 37.1. The Permittee shall not install stationary CI ICE units in previous (2007 – 2017) model years after the dates and as specified in 40 CFR 60.4208(a) – (g). 37.2. In addition to the requirements specified in 40 CFR 60.4201, 60.4202, 60.4204, and 60.4205, the Permittee shall not import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements and after the dates specified in 40 CFR 60.4208(a) – (g). 37.3. The requirements of Condition 37 do not apply to stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location	In Compliance	Records Review
NESHAP Subpart A - General Provisions			
38	NESHAP Subpart A Applicability. The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in 38.1. Table 2 to NESHAP Subpart HH for EU ID 27 listed in Table A; and 38.2. Table 8 to NESHAP Subpart ZZZZ for EU IDs 7 through 15, 17 and 18 listed in Table A.	In Compliance	Records Review
NESHAP Subpart HH - Oil and Natural Gas Production Facilities, EU ID 27			
39	NESHAP Subpart HH Applicability and General Requirements. The Permittee shall comply with the applicable Subpart HH requirements for the affected triethylene glycol (TEG) dehydration unit, EU ID 27 listed in Table A, located at an oil and NG production facility classified as an area source of hazardous air pollutant (HAP).		

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39	<p>39.1. Major Source Determination. If Anna Platform has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), the Permittee shall update its major source determination within 1 year of the prior determination, and each year thereafter, using gas composition data measured during the preceding 12 months.</p> <p>a. If Anna Platform subsequently increases its emissions or its potential to emit above the major source levels, and becomes a major source, the Permittee must comply thereafter with all provisions of 40 CFR 63 Subpart HH applicable to a major source starting immediately upon becoming a major source.</p> <p>39.2. NESHAP Subpart HH Affirmative defense. The Permittee shall comply with the provisions of 40 CFR 63.762 if electing to assert an affirmative defense for violations of emission standards during malfunction.</p> <p>39.3. NESHAP Subpart HH GAPCP. At all times the Permittee must operate and maintain EU ID 27, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 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.</p>	In Compliance	Records Review
40	<p>NESHAP Subpart HH General Standards. For the triethylene glycol (TEG) dehydration unit, EU ID 27, the Permittee shall comply with the following:</p> <p>40.1. Glycol Circulation Rate. Determine the optimum glycol circulation rate using the following equation: $L_{OPT} = 1.15 * 3.0 \text{ gal}_{TEG}/\text{lb}_{H_2O} * (F * [I - O]) / 24 \text{ hr/day}$ Where: L_{OPT} = Optimal circulation rate, gal/hr F = Gas flowrate (MMSCF/D) I = Inlet water content (lb/MMSCF) 3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal_{TEG}/lb_{H₂O}) 1.15 = Adjustment factor included for a margin of safety</p> <p>a. Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with the equation in Condition 40.1. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with Condition 40, the owner or operator must</p> <p>(i) calculate an alternate circulation rate using GRI-GLYCalc™, Version 3.0 or higher; and (ii) document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with 40 CFR 63.775(c)(7).</p> <p>b. Maintain a record of the determination specified in Condition 40.1.a in accordance with the requirements in Condition 42.5 and submit the Initial Notification in accordance with the requirements in 40 CFR 63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with Condition 40 or 40.1.a and submit the information specified under 40 CFR 63.775(c)(7)(ii) through (v).</p>	In Compliance	Records Review
	<p>40.2. Exemption. The Permittee is exempt from the requirements of Condition 40.1 if the criteria listed in Condition 40.2.a or 40.2.b are met, except that the records of the determination of these criteria must be maintained as required in Condition 42.4.</p> <p>a. The actual annual average flow rate of natural gas to glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in Condition 41.1; or</p> <p>b. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in Condition 41.2.</p>	In Compliance	Records Review
41	<p>NESHAP Subpart HH Monitoring. The Permittee shall use the following procedures to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.</p> <p>41.1. Determine the actual flow rate of natural gas to EU ID 27 as follows:</p> <p>a. Install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. Convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.</p> <p>b. Document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.</p>	In Compliance	Records Review
	<p>41.2. Determination actual average benzene or BTEX emissions from EU ID 27 using the procedures of either Conditions 41.2.a or 41.2.b, either uncontrolled, or with federally enforceable controls in place, as follows:</p> <p>a. Determine actual average benzene or BTEX emissions using the model GRIGLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or</p> <p>b. Determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in 40 CFR 63.772(a)(1)(i) or (ii), or an alternative method according to 40 CFR 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.</p>	In Compliance	Records Review

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42	<p>NESHAP Subpart HH Recordkeeping Requirements. The Permittee shall keep records as follows:</p> <p>42.1. Maintain files of all information (including all reports and notifications) required by NESHAP Subpart HH and the associated records specified in 40 CFR 63.10(b)(2) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period, in such a manner that they can be readily accessed.</p> <p>42.2. The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request; the remaining 4 years of records may be retained offsite.</p> <p>42.3. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.</p> <p>42.4. If EU ID 27 meets the exemption criteria in Condition 40.2.a or 40.2.b, the Permittee shall maintain the records specified in Condition 42.4.a or 42.4.b, as appropriate.</p> <p>a. The actual annual average natural gas throughput (in terms of natural gas flow rate to the glycol dehydration unit per day) as determined in accordance with Condition 41, or</p> <p>b. The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with Condition 41.1.</p> <p>42.5. The Permittee must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with Condition 40.1 or 40.1.a, as applicable.</p> <p>42.6. For EU ID 27, the Permittee shall maintain records of the following:</p> <p>a. occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control equipment and monitoring equipment;</p> <p>b. actions taken during periods of malfunction to minimize emissions in accordance with Condition 39.2; and</p> <p>c. corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	In Compliance	Records Review
43	<p>NESHAP Subpart HH Reporting Requirements. The Permittee shall report as follows:</p> <p>43.1. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the Permittee shall submit a report within 180 days after the process change is made. The report shall include:</p> <p>a. A brief description of the process change;</p> <p>b. A description of any modification to standard procedures or quality assurance procedures;</p> <p>c. Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of 40 CFR 63.775; and</p> <p>d. Information required by the Notification of Compliance Status Report under paragraph (d) of 40 CFR 63.775 for changes involving the addition of processes or equipment.</p> <p>43.2. Send all reports required by NESHAP Subpart HH to the Administrator at the appropriate address listed in 40 CFR 63.13. Reports may be submitted on electronic media. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy).</p>	In Compliance	Records Review
NESHAP Subpart ZZZZ - Stationary RICE, EU IDs 7 through 18			
44	<p>NESHAPs Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for existing (EU IDs 7 through 15, 17, and 18) and new (EU ID 16) stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.</p> <p>44.1. For EU IDs 7 through 15, 17, and 18, existing stationary RICE units, the Permittee shall at all times comply with Conditions 45 through 48.</p> <p>44.2. For EU ID 16, new stationary RICE units, the Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII in Conditions 31 through 37. No further requirements apply for such engines under 40 CFR 63.</p>	In Compliance	Records Review and Field Verification/Interview
45	<p>NESHAPs Subpart ZZZZ GAPCP, Operation and Maintenance Requirements. The Permittee shall comply with the following:</p> <p>45.1. At all times, operate and maintain EU IDs 7 through 15, 17, and 18, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 7 through 15, 17, and 18.</p> <p>45.2. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to either:</p> <p>a. the manufacturer's emission-related written instructions for operation and maintenance; or</p> <p>b. a maintenance plan developed by the Permittee which must provide, to the extent practicable, for the maintenance and operation of the engine(s) in a manner consistent with good air pollution control practice for minimizing emissions.</p> <p>45.3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.</p>	In Compliance	Records Review and Field Verification/Interview

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46	<p>NESHAP Subpart ZZZZ Work and Management Practices Standards and Monitoring. For EU IDs 7 through 15, 17, and 18, the Permittee shall comply with the following work and management practices and monitoring requirements:</p> <p>46.1. For EU IDs 14, 15, 17, and 18 (non-emergency, non-black start CI stationary RICE ≤300 Hp):</p> <p>a. Except during periods of startup, the Permittee shall meet the following requirements:</p> <p>(i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7;</p> <p>(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</p> <p>46.2. For EU IDs 7 through 12 (non-emergency, non-black start 4SRB stationary RICE ≤500 Hp):</p> <p>a. Except during periods of startup, the Permittee shall meet the following requirements:</p> <p>(i) Change oil and filter every 1,440 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7;</p> <p>(ii) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>(iii) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</p>	In Compliance	Records Review and Field Verification/Interview
	<p>46.3. For EU ID 13 (non-emergency, non-black start 4SRB remote stationary RICE >500 Hp):</p> <p>a. Except during periods of startup, the Permittee shall meet the following requirements:</p> <p>(i) Change oil and filter every 2,160 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7;</p> <p>(ii) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>(iii) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</p>	In Compliance	Records Review and Field Verification/Interview
	<p>46.4. For EU ID 13, which meets the definition of remote stationary RICE in 40 CFR 63.6675 as of October 19, 2013, the Permittee must evaluate the status of the stationary RICE every 12 months. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in 40 CFR 63.6675, the Permittee must comply with all of the requirements for existing nonemergency 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.</p> <p>46.5. During periods of startup, the Permittee shall comply with Condition 45.3.</p> <p>46.6. Demonstrate continuous compliance with the requirements in Conditions 46.1 through 46.3 by complying with Condition 45.2.</p>	In Compliance	Records Review and Field Verification/Interview
	<p>46.7. The Permittee has the option to utilize an oil analysis program in order to extend the specified oil change requirements in Condition 46.1.a(i), 46.2.a(i), and 46.3.a(i), as described below:</p> <p>a. The oil analysis must be performed at the same frequency specified for changing the oil in Conditions 46.1.a(i), 46.2.a(i), and 46.3.a(i).</p> <p>b. The analysis program must, at a minimum, analyze the following parameters: Total Base Number (for CI engines), Total Acid Number (for SI engines), viscosity, and percent water content. The condemning limits for these parameters are as follows:</p> <p>(i) For EUIDs 14, 15, 17, and 18, Total Base Number is less than 30 percent of the Total Base Number of the oil when new;</p> <p>(ii) For EU IDs 7 through 13, Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;</p> <p>(iii) For EUIDs 7 through 15, 17, and 18, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or</p> <p>(iv) For EUIDs 7 through 15, 17, and 18, percent water content (by volume) is greater than 0.5.</p> <p>c. If all of the condemning limits in Conditions 46.7.b(i) through 46.7.b(iv) are not exceeded, the Permittee is not required to change the oil.</p> <p>d. If any of the limits in Conditions 46.7.b(i) through 46.7.b(iv) is exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis.</p> <p>(i) If the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later.</p> <p>e. The analysis program must be part of the maintenance plan for the engine.</p>	In Compliance	Records Review

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47	NESHAP Subpart ZZZZ Recordkeeping Requirements. The Permittee shall keep records, as follows: 47.1. If electing to operate and maintain EU IDs 7 through 15, 17, and 18 according to a maintenance plan developed by the Permittee as allowed under Condition 45.2.b, keep records of the maintenance conducted on EU IDs 7 through 15, 17, and 18 in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to the maintenance plan. 47.2. If electing to utilize the oil analysis program described in Condition 46.7, 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. 47.3. Keep records in a form suitable and readily available for expeditious review. Keep each record in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1), except that all records may be retained off site. 47.4. For EU ID 13, the Permittee must keep records of the initial and annual evaluation of the status of the engine with regard to EU ID 13 meeting the definition of remote stationary RICE in 40 CFR 63.6675.	In Compliance	Records Review
48	NESHAP Subpart ZZZZ Reporting Requirements. The Permittee shall report, as follows: 48.1. Include in the operating report required by Condition 82 a report of all deviations as defined in 40 CFR 63.6675 and of each instance in which an applicable requirement in 40 CFR 63, Subpart A (Table 8 to Subpart ZZZZ) was not met. 48.2. Notify the Department in accordance with Condition 81 if any of the requirements in Conditions 38 through 48 were not met.	In Compliance	Records Review
40 CFR Part 61 NESHAP Subpart A (General Provisions) and Subpart M (Asbestos)			
49	The Permittee shall comply with the applicable 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.	In Compliance	Field Verification/Interview
40 CFR Part 82 Protection of Stratospheric Ozone			
50	Subpart F – Recycling and Emissions Reduction. The Permittee shall comply with the applicable standards for recycling and emission reduction of refrigerants set forth in 40 CFR 82, Subpart F.	In Compliance	Field Verification/Interview
51	Subpart G – Significant New Alternatives. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.174 (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).	In Compliance	Records Review
52	Subpart H – Halons Emissions Reduction. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).	In Compliance	Field Verification/Interview
40 CFR 63 NESHAP Applicability Determinations			
53	The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 CFR 63) in accordance with the procedures described in 40 CFR 63.1(b). 53.1. If an owner or operator of a stationary source who is in the relevant source category determines that the source is not subject to a relevant standard or other requirement established under 40 CFR 63, the owner or operator must keep a record as specified in 40 CFR 63.10(b)(3). 53.2. If a source becomes affected by an applicable subpart of 40 CFR 63, the owner or operator shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 CFR 63.6(c). 53.3. After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator and the Department of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 CFR 63.9(b).	In Compliance	Records Review
Section 5. General Conditions			
54	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.	In Compliance	Advisory Provision
55	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.	In Compliance	Advisory Provision
56	The permit does not convey any property rights of any sort, nor any exclusive privilege	In Compliance	Advisory Provision
57	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.	In Compliance	Records Review

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Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
58	<p>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. 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</p> <p>58.1. the stationary source's assessable potential to emit of 860 TPY; or</p> <p>58.2. 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:</p> <p>a. an enforceable test method described in 18 AAC 50.220;</p> <p>b. material balance calculations;</p> <p>c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or</p> <p>d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.</p>	In Compliance	Records Review
59	<p>Assessable Emission Estimates. Emission fees will be assessed as follows:</p> <p>59.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions via the Department's Air Online Services (AOS) System at http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option and filling out the Emission Fee Estimate form. Alternatively, the report may be submitted by:</p> <p>a. E-mail under a cover letter using dec.aq.airreports@alaska.gov; or</p> <p>b. hard copy to the following address: ADEC Air Permits Program, ATTN: Assessable Emissions Estimate, 555 Cordova Street, Anchorage, Alaska 99501.</p> <p>59.2. The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.</p> <p>59.3. 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 58.1.</p>	In Compliance	Records Review
60	<p>Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 2, 19 and K1 through K7:</p> <p>60.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;</p> <p>60.2. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and</p> <p>60.3. keep a copy of either the manufacturer's or the operator's maintenance procedures</p>	In Compliance	Records Review
61	<p>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.</p>	In Compliance	Field Verification/Interview
62	<p>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.</p>	In Compliance	Field Verification/Interview
62	<p>62.1. The Permittee shall keep records of</p> <p>a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and</p> <p>b. any additional precautions that are taken</p> <p>(i) to address complaints described in Condition 62.1.a or to address the results of Department inspections that found potential problems; and</p> <p>(ii) to prevent future dust problems.</p> <p>62.2. The Permittee shall report according to Conditions 64.1.e and 64.1.f.</p>	In Compliance	Field Verification/Interview
63	<p>Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a stationary source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.</p>	In Compliance	Field Verification/Interview

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No.	Summary/Description		[40 CFR 71.5(c)(9)]
64	<p>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.</p> <p>64.1. Monitoring, Recordkeeping, and Reporting:</p> <p>a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 81.</p> <p>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 64.</p> <p>c. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if</p> <p>(i) after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 64; or</p> <p>(ii) the Department notifies the Permittee that it has found a violation of Condition 64.</p> <p>d. The Permittee shall keep records of</p> <p>(i) the date, time, and nature of all emissions complaints received;</p> <p>(ii) the name of the person or persons that complained, if known;</p> <p>(iii) a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 64; and</p> <p>(iv) any corrective actions taken or planned for complaints attributable to emissions from the stationary source.</p>	In Compliance	Records Review and Field Verification/Interview
	<p>e. With each stationary source operating report under Condition 82, the Permittee shall include a brief summary report which must include</p> <p>(i) the number of complaints received;</p> <p>(ii) the number of times the Permittee or the Department found corrective action necessary;</p> <p>(iii) the number of times action was taken on a complaint within 24 hours; and</p> <p>(iv) the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.</p> <p>f. 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.</p>	In Compliance	Records Review
65	<p>Technology-Based Emission Standard. If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or non-routine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard listed in Conditions 27, 29, or 50 (refrigerants), the Permittee shall</p> <p>65.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and</p> <p>65.2. report in accordance with Condition 81.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken.</p>	In Compliance	Records Review
Open Burning Requirements			
66	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			
67	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
68	<p>Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing</p> <p>68.1. at a point or points that characterize the actual discharge into the ambient air; and</p> <p>68.2. at the maximum rated burning or operating capacity of the emissions unit or another rate determined by the Department to characterize the actual discharge into the ambient air.</p>	In Compliance	Records Review
69	<p>Reference Test Methods. The Permittee shall use the following test methods when conducting source testing for compliance with this permit:</p> <p>69.1. 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 CFR 60.</p> <p>69.2. 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 CFR 63.</p> <p>69.3. Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9. The Permittee may use the form in Section 11 to record data.</p> <p>69.4. Source testing for emissions of PM_{2.5} and PM₁₀, 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</p> <p>69.5. Source testing for emissions of PM₁₀ and PM_{2.5} must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M, Methods 201 or 201A and 202.</p> <p>69.6. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 CFR 63 Appendix A, Method 301.</p>	In Compliance	Records Review
70	Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emissions unit type, corrected to standard conditions (dry gas at 68 °F and an absolute pressure of 760 millimeters of mercury).	In Compliance	Advisory Provision

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Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
71	Test Exemption. The Permittee is not required to comply with Conditions 73, 74 and 75 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.2).	In Compliance	Advisory Provision
72	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
73	Test Plans. Except as provided in Condition 71, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 67 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.	In Compliance	Records Review
74	Test Notification. Except as provided in Condition 71, 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
75	Test Reports. Except as provided in Condition 71, 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 <i>Source Test Report Outline</i> , adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in Condition 78. 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
76	Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 17.2, 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			
77	Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including: 77.1. copies of all reports and certifications submitted pursuant to this section of the permit; and 77.2. 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
78	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: " <i>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.</i> " 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. 78.1. 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 09.80.020 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 78.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.	In Compliance	Records Review
79	Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall submit one certified copy of reports, compliance certifications, and/or other submittals required by this permit. The Permittee may submit the documents by hard copy or electronically, as follows: 79.1. Submit hard copy to the following address: ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. 79.2. Provide electronic submittals either by: a. using the Department's Air Online Services (AOS) system at http://dec.alaska.gov/applications/air/airtoolsweb/ using the Permittee Portal option; or b. an email, under a cover letter, addressed to dec.aq.airreports@alaska.gov .	In Compliance	Records Review
80	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

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Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
81	Excess Emissions and Permit Deviation Reports.		
	<p>81.1. Except as provided in Condition 64, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:</p> <p>a. In accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report</p> <p>(i) emissions that present a potential threat to human health or safety; and</p> <p>(ii) excess emissions that the Permittee believes to be unavoidable;</p> <p>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; and</p> <p>c. Report all other excess emissions and permit deviations</p> <p>(i) within 30 days after the end of the month in which the excess emissions or deviation occurred, except as provided in Conditions 81.1.c(ii) and 81.1.c(iii);</p> <p>(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 81.1.c(i); and</p> <p>(iii) for failure to monitor, as required in Conditions 4.2.b and 9.1.b.</p>	In Compliance	Records Review
	81.2. When reporting excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option, 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.	In Compliance	Records Review
	81.3. 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
82	Operating Reports. During the life of this permit, the Permittee shall submit to the Department one original and one copy of 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.		
	82.1. The operating report must include all information required to be in operating reports by other conditions of this permit.		
	82.2. If excess emissions or permit deviations that occurred during the certification period are not reported under Condition 82.1, either		
	a. The Permittee shall identify		
	(i) the date of the deviation;		
	(ii) the equipment involved;		
	(iii) the permit condition affected;		
	(iv) a description of the excess emissions or permit deviation; and		
	(v) any corrective action or preventive measures taken and the date of such actions; or		
	b. When excess emissions or permit deviations have already been reported under Condition 81 the Permittee shall cite the date or dates of those reports.		
	82.3. The operating report must include a listing of emissions monitored under Conditions 2.1.e and 28.1.a(ii), 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.		
	82.4. 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
83	Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 79.		
	83.1. 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.		
	83.2. 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.		
	83.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA – Region 10, ATTN: Air Toxics and Enforcement Section, Mail Stop: 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.	In Compliance	Records Review

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Permit Condition		Compliance Status	Method Used to Determine Status
No.	Summary/Description		[40 CFR 71.5(c)(9)]
84	<p>Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH₃, NO_x, PM₁₀, PM_{2.5}, SO₂, VOCs and Lead (Pb) (and lead compounds) for the previous calendar year using the form in Section 14 of this permit, as follows:</p> <p>84.1. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:</p> <p>a. 250 TPY of NH₃, PM₁₀, PM_{2.5} or VOCs; or</p> <p>b. 2,500 TPY of CO, NO_x or SO₂.</p> <p>84.2. Every third year by April 30, if the stationary source's potential to emit for the previous calendar year (except actual emissions for Pb) equals or exceeds:</p> <p>a. 0.5 TPY of actual Pb, or</p> <p>b. 1,000 TPY of CO; or</p> <p>c. 100 TPY of SO₂, NH₃, PM₁₀, PM_{2.5}, NO_x or VOCs.</p> <p>84.3. For reporting under Condition 84.2, the Permittee shall report in 2021 for calendar year 2020, 2024 for calendar year 2023, etc., in accordance with the Environmental Protection Agency schedule.</p> <p>84.4. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Tables 2a and 2b of Appendix A to Subpart A of 40 CFR 51 for each stack associated with an emissions unit.</p>	In Compliance	Records Review
85	<p>NSPS and NESHAP Reports. The Permittee shall comply with the following:</p> <p>85.1. 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 82 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</p> <p>85.2. 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.</p>	In Compliance	Records Review
Section 8. Permit Changes and Renewal			
86	<p>Permit Applications and Submittals. The Permittee shall comply with the following requirements for submitting application information to the EPA:</p> <p>86.1. 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;</p> <p>86.2. The information shall be submitted to the Part 70 Operating Permit Program, US EPA – Region 10, Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188;</p> <p>86.3. 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</p> <p>86.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.</p>	In Compliance	Records Review
87	<p>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.</p>	In Compliance	Advisory Provision
88	<p>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 CFR 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:</p> <p>88.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;</p> <p>88.2. 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;</p> <p>88.3. The change shall not qualify for the shield under 40 CFR 71.6(f); and</p> <p>88.4. 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.</p>	In Compliance	Records Review and Field Verification/Interview
89	<p>Operational Flexibility. The Permittee may make Section 502(b)(10) 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).</p> <p>89.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.</p> <p>89.2. 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.</p> <p>89.3. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 89.</p>	In Compliance	Records Review and Field Verification/Interview

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No.	Summary/Description		[40 CFR 71.5(c)(9)]
90	Permit Renewal. To renew this permit, the Permittee shall submit to the Department an application under 18 AAC 50.326 no sooner than October 29, 2023 and no later than October 29, 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 CFR 71.7(b) and 71.5(a)(1)(iii).	In Compliance	Records Review
Section 9. Compliance Requirements			
General Compliance Requirements			
91	Compliance with permit terms and conditions is considered to be compliance with those requirements that are 91.1. included and specifically identified in the permit; or 91.2. determined in writing in the permit to be inapplicable	In Compliance	Advisory Provision
92	92. The Permittee must comply with each permit term and condition. 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 92.1. an enforcement action; 92.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or 92.3. denial of an operating permit renewal application.	In Compliance	Advisory Provision
93	For applicable requirements with which the stationary source is in compliance, the Permittee shall continue to comply with such requirements.	In Compliance	Advisory Provision
94	For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.	In Compliance	Advisory Provision
95	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.	In Compliance	Advisory Provision
96	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 96.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept; 96.2. have access to and copy any records required by the permit; 96.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and 96.4. sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.	In Compliance	Field Verification/Interview

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 that 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). Anna Platform was not selected for evaluation in step one. Because all emissions associated with the stationary source would be included in the baseline analysis, no further analysis was conducted.

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 – Internal Combustion Equipment
- Form B5:** Emission Unit Detail Form – Miscellaneous Emission Units

FORM B
Emission Unit Listing For This Application

Permit Number: AQ0062TVP04

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					
13	Emergency Generator Drive	Caterpillar G-399 Engine	750 hp	1982	Unit is redesignated as an emergency engine.
27	TEG Dehydration Unit	Glycol Regenerator	9 MMscfd	2007	Update rating/size
Emission Units To Be DELETED By This Application					
K1	Hydraulic Power Unit	Detroit Diesel/Series DDEC IV Engine	850 hp	TBD (NRE)	Permit No. AQ1411MSS02 for the Kuukpik V Drill Rig is being modified to remove Anna Platform as an authorized location.
K2	Hydraulic Power Unit	Detroit Diesel/Series DDEC IV Engine	850 hp	TBD (NRE)	
K3	Light Plant Generator	Detroit Diesel/Series 60 Engine	600 hp	TBD (NRE)	
K4	Light Plant Generator	Detroit Diesel/Series 60 Engine	600 hp	TBD (NRE)	
K5	Portable Hydraulic Generator	Engine (make/model unknown)	101 hp	TBD (NRE)	
K6	Boiler	Volcano Boiler	3.6 MMBtu/hr	TBD	
K7	Boiler	Volcano Boiler	3.6 MMBtu/hr	TBD	

FORM B
Emission Unit Listing For This Application

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
2	Solar AC #3	Solar Saturn MK-I Turbine	750 kW	1971
3	Solar Bing #1	Solar Saturn T-1400 Turbine	1,400 hp	1996
4	Solar Bing #2	Solar Saturn T-1400 Turbine	1,400 hp	1997
5	Solar AC #2	Solar Saturn MK-II Turbine	800 kW	1985
7	Kobe Pump Drive #1	Waukesha Triplex 1197G	150 hp	1968
8	Kobe Pump Drive #2	Waukesha Triplex 1197G	150 hp	1968
9	Kobe Pump Drive #3	Waukesha Triplex 1197G	150 hp	1968
10	Kobe Pump Drive #7	Waukesha Triplex 1905G	180 hp	1968
11	Kobe Pump Drive #8	Waukesha Triplex 1905G	180 hp	1968
12	Kobe Pump Drive #9	Waukesha Triplex 1905G	180 hp	1968
14	Fire Water Pump Drive	Waukesha 1197D Engine	192 hp	1966
15	Backup Generator Drive	Caterpillar DE-3208 Engine	235 hp	1984
16	SeaTrax West Crane	John Deere 6135 Engine	500 hp	2007
17	Sea King East Crane	Caterpillar D-3406B Engine	325 hp	1988
18	Air Compressor Drive	Detroit Diesel D6-71 Engine	165 hp	1979
19	Safety/Operating Flares	Flare (HP/LP) and Pilot	28 MMscfd	1966

FORM B
Emission Unit Listing For This Application

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
Heater (3 units)	Modine PDP	0.4 MMBtu/hr, each	2021	18 AAC 50.326(g)(5) – < 4 MMBtu/hr burning natural gas - NSPS Dc – < 10MMBtu/hr - NESHAP JJJJJJ – not a boiler
Boiler	Riello Boiler	4.0 MMBtu/hr	2021	18 AAC 50.326(e) – potentials < rates - NSPS Dc – < 10MMBtu/hr - NESHAP JJJJJJ – gas-fired boiler
Tank 2	Diesel Storage Tank	2,500 barrels	1966	18 AAC 50.326(e) – potentials < rates - NSPS K, Ka – not a petroleum liquid - NSPS Kb – construction prior to 7/23/1984
Tank 3	Crude Storage Tank	2,300 barrels	1966	18 AAC 50.326(e) – potentials < rates - NSPS K– construction prior to 5/19/1978 - NSPS Ka – construction prior to 7/23/1984 - NSPS Kb – construction prior to 7/23/1984
Tank 4	Crude Storage Tank	2,500 barrels	1966	
Tank 5	Crude Storage Tank	2,500 barrels	1966	
Tank 7	Produced Water Tank	600 barrels	1966	
Tank 8	Produced Water Tank	600 barrels	1966	
Upper Center Bay Day Tank	Diesel Storage Tank	1,000 gallons	Unknown	18 AAC 50.326(e) – potentials < rates - NSPS K, Ka – not a petroleum liquid - NSPS Kb – < 19,800 gallons
West Crane Tank	Diesel Storage Tank	350 gallons	Unknown	
East Crane Tank	Diesel Storage Tank	300 gallons	Unknown	
Fire Water Pump Tank	Diesel Storage Tank	250 gallons	Unknown	
Emergency Generator Tank	Diesel Storage Tank	115 gallons	Unknown	
Center Bay Lube Oil Tank	Lube Oil Storage Tank	2,917 gallons	Unknown	
Center Bay Demulsifier Tank	Demulsifier Storage Tank	330 gallons	Unknown	
Center Bay Paraffin Dispersant Tank	Paraffin Dispersant Storage Tank	330 gallons	Unknown	
Center Bay Test Chemical Tank	Test Chemical Storage Tank	200 gallons	Unknown	

FORM B2**Emission Unit Detail Form - Internal Combustion Equipment (Engines and Turbines)**Permit Number: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 2 // Base Scenario
2.	Date installation/construction commenced ¹	1971
3.	Date installed	1971
4.	Emission Unit serial number	Unknown (A-PM-0500)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Saturn MK-1
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	N/A
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	12.1 MMBtu/hr
10.	If used for power generation, electrical output (kW)	750 kW

- 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 YYYYY 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)
Natural Gas	Approximately 8.6 Mscf/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 60	18 AAC 50.326(j)(3), 50.346(b)(5)	Good Air Pollution Control Practices	Perform regular maintenance according to manufacturer's or operator's maintenance procedures, keep record of significant maintenance, and keep a copy of manufacturer's or operator's maintenance procedures.	Yes.	Monitor and record in accordance with Conditions 60.1 through 60.3.

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)

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	EU ID 2 was not constructed, modified, or reconstructed after October 3, 1977.
40 CFR 60 Subpart KKKK	EU ID 2 was not constructed, modified, or reconstructed after February 18, 2005.
40 CFR 63 Subpart YYYY	Anna Platform is not 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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 3 // Base Scenario
2.	Date installation/construction commenced ¹	1996
3.	Date installed	1996
4.	Emission Unit serial number	Unknown (A-PM-0420)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Saturn T-1400
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	1,400 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	14.8 MMBtu/hr
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 YYYYY 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)
Natural Gas	Approximately 10.6 Mscf/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 19	40 CFR 60.7(b), Subpart A	NSPS Subpart A Startup, Shutdown, & Malfunction	Maintain records of the occurrence and duration of any start-up, shutdown, or malfunction.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Conditions 20 & 21	40 CFR 60.7(c) & (d), Subpart A	NSPS Subpart A Excess Emissions and Monitoring Systems Performance / Summary Report	Submit an excess emissions and monitoring systems performance report and/or summary report form to the Administrator semiannually.	Yes.	Submit reports in accordance with Conditions 20.1 through 20.4, 21.1, and 21.2.
AQ0062TVP04 – Condition 22	40 CFR 60.8(a), Subpart A	NSPS Subpart A Performance (Source) Tests	Conduct source tests as required and provide a written report.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 23	40 CFR 60.11(d), Subpart A	NSPS Subpart A Good Air Pollution Control Practices	At all times, including periods of startup, shutdown, and malfunction, maintain and operate units in a manner consistent with good air pollution control practice for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 24	40 CFR 60.11(g), Subpart A	NSPS Subpart A Credible Evidence	For submitting compliance certifications or establishing a violation, nothing in 40 CFR 60 shall preclude the use of any credible evidence or information relevant to whether units would have been in compliance if the appropriate test or procedure had been performed.	N/A	Advisory Provision.
AQ0062TVP04– Condition 25	40 CFR 60.12, Subpart A	NSPS Subpart A Concealment of Emissions	Do not build, erect, install, or use any article, machine, equipment, or process that conceals emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04– Condition 26	40 CFR 60.330(a) & (b), Subpart GG	NSPS Subpart GG Applicability	Comply with the applicable requirements for stationary gas turbines.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 27	40 CFR 60.332(a)(2) & (d), Subpart GG	NSPS Subpart GG NO _x Standard	Do not allow the exhaust gas concentration of NO _x , on a dry basis at 15 percent oxygen and ISO standard day conditions to exceed 150 ppmv.	Yes.	Monitor, record, and report in accordance with Condition 28.
AQ0062TVP04 – Condition 29	40 CFR 60.333(b), Subpart GG	NSPS Subpart GG SO ₂ Standard	Do not burn any fuel which contains total sulfur in excess of 0.8 wt% _{S_{fuel}} (8000 ppmw).	Yes.	Monitor, record, and report in accordance with Condition 30.

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)

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, 60.334(a), (b), (d), & (g)	EU ID 3 does not use a continuous emissions monitoring system (CEMS) or water/steam injection.
40 CFR 60 Subpart GG, 60.334(e) & (f)	EU ID 3 commenced construction before July 8, 2004.
40 CFR 60 Subpart GG, 60.334(h)(2)	No fuel bound nitrogen allowance is claimed for EU ID 3, so nitrogen content of the fuel does not have to be monitored.
40 CFR 60 Subpart KKKK	EU ID 3 was not constructed, modified, or reconstructed after February 18, 2005.
40 CFR 63 Subpart YYYY	Anna Platform is not 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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 4 // Base Scenario
2.	Date installation/construction commenced ¹	1997
3.	Date installed	1997
4.	Emission Unit serial number	Unknown (A-PM-0430)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Saturn T-1400
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	1,400 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	14.8 MMBtu/hr
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 YYYYY 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)
Natural Gas	Approximately 10.6 Mscf/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 19	40 CFR 60.7(b), Subpart A	NSPS Subpart A Startup, Shutdown, & Malfunction	Maintain records of the occurrence and duration of any start-up, shutdown, or malfunction.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Conditions 20 & 21	40 CFR 60.7(c) & (d), Subpart A	NSPS Subpart A Excess Emissions and Monitoring Systems Performance / Summary Report	Submit an excess emissions and monitoring systems performance report and/or summary report form to the Administrator semiannually.	Yes.	Submit reports in accordance with Conditions 20.1 through 20.4, 21.1, and 21.2.
AQ0062TVP04 – Condition 22	40 CFR 60.8(a), Subpart A	NSPS Subpart A Performance (Source) Tests	Conduct source tests as required and provide a written report.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 23	40 CFR 60.11(d), Subpart A	NSPS Subpart A Good Air Pollution Control Practices	At all times, including periods of startup, shutdown, and malfunction, maintain and operate units in a manner consistent with good air pollution control practice for minimizing emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 24	40 CFR 60.11(g), Subpart A	NSPS Subpart A Credible Evidence	For submitting compliance certifications or establishing a violation, nothing in 40 CFR 60 shall preclude the use of any credible evidence or information relevant to whether units would have been in compliance if the appropriate test or procedure had been performed.	Yes.	Advisory Provision.
AQ0062TVP04 – Condition 25	40 CFR 60.12, Subpart A	NSPS Subpart A Concealment of Emissions	Do not build, erect, install, or use any article, machine, equipment, or process that conceals emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 26	40 CFR 60.330(a) & (b), Subpart GG	NSPS Subpart GG Applicability	Comply with the applicable requirements for stationary gas turbines.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 27	40 CFR 60.332(a)(2) & (d), Subpart GG	NSPS Subpart GG NO _x Standard	Do not allow the exhaust gas concentration of NO _x , on a dry basis at 15 percent oxygen and ISO standard day conditions to exceed 150 ppmv.	Yes.	Monitor, record, and report in accordance with Condition 28.
AQ0062TVP04 – Condition 29	40 CFR 60.333(b), Subpart GG	NSPS Subpart GG SO ₂ Standard	Do not burn in any fuel which contains total sulfur in excess of 0.8 wt% S _{fuel} (8000 ppmw).	Yes.	Monitor, record, and report in accordance with Condition 30.

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)

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, 60.334(a), (b), (d), & (g)	EU ID 4 does not use a continuous emissions monitoring system (CEMS) or water/steam injection.
40 CFR 60 Subpart GG, 60.334(e) & (f)	EU ID 4 commenced construction before July 8, 2004.
40 CFR 60 Subpart GG, 60.334(h)(2)	No fuel bound nitrogen allowance is claimed for EU ID 4, so nitrogen content of the fuel does not have to be monitored.
40 CFR 60 Subpart KKKK	EU ID 4 was not constructed, modified, or reconstructed after February 18, 2005.
40 CFR 63 Subpart YYYY	Anna Platform is not 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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 5 // Base Scenario
2.	Date installation/construction commenced ¹	1985
3.	Date installed	1985
4.	Emission Unit serial number	Unknown (A-PM-0560)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Solar Saturn MK-II
7.	Type of combustion device	Turbine
8.	Rated design capacity (horsepower rating for engines)	N/A
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	12.9 MMBtu/hr
10.	If used for power generation, electrical output (kW)	800 kW

- 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 YYYYY 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)
Natural Gas	Approximately 9.2 Mscf/hr
Diesel	Approximately 94 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Conditions 1.2 and 13.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Conditions 6.2, 7, 8, 9, and 13.
AQ0062TVP04 – Condition 14	AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.1 (when burning fuel oil) and 14.3 through 14.6 (when burning fuel gas).
AQ0062TVP04 – Condition 19	40 CFR 60.7(b), Subpart A	NSPS Subpart A Startup, Shutdown, & Malfunction	Maintain records of the occurrence and duration of any start-up, shutdown, or malfunction.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Conditions 20 & 21	40 CFR 60.7(c) & (d), Subpart A	NSPS Subpart A Excess Emissions and Monitoring Systems Performance / Summary Report	Submit an excess emissions and monitoring systems performance report and/or summary report form to the Administrator semiannually.	Yes.	Submit reports in accordance with Conditions 20.1 through 20.4, 21.1, and 21.2.
AQ0062TVP04 – Condition 22	40 CFR 60.8(a), Subpart A	NSPS Subpart A Performance (Source) Tests	Conduct source tests as required and provide a written report.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 23	40 CFR 60.11(d), Subpart A	NSPS Subpart A Good Air Pollution Control Practices	At all times, including periods of startup, shutdown, and malfunction, maintain and operate units in a manner consistent with good air pollution control practice for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 24	40 CFR 60.11(g), Subpart A	NSPS Subpart A Credible Evidence	For submitting compliance certifications or establishing a violation, nothing in 40 CFR 60 shall preclude the use of any credible evidence or information relevant to whether units would have been in compliance if the appropriate test or procedure had been performed.	Yes.	Advisory Provision.
AQ0062TVP04 – Condition 25	40 CFR 60.12, Subpart A	NSPS Subpart A Concealment of Emissions	Do not build, erect, install, or use any article, machine, equipment, or process that conceals emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 26	40 CFR 60.330(a) & (b), 60.332(k), 60.334(j)(4), Subpart GG	NSPS Subpart GG Applicability	Comply with the applicable requirements for stationary gas turbines. EU ID 5 is exempt from NSPS Subpart GG NO _x standards in Condition 27 when being fired with an emergency fuel (fuel oil).	Yes.	Report in accordance with Condition 26.1.
AQ0062TVP04 – Condition 27	40 CFR 60.332(a)(2) & (d) Subpart GG	NSPS Subpart GG NO _x Standard	Do not allow the exhaust gas concentration of NO _x , on a dry basis at 15 percent oxygen and ISO standard day conditions to exceed 150 ppmv.	Yes.	Monitor, record, and report in accordance with Condition 28.
AQ0062TVP04 – Condition 29	40 CFR 60.333(b)	NSPS Subpart GG SO ₂ Standard	Do not burn any fuel which contains total sulfur in excess of 0.8 wt%S _{fuel} (8000 ppmw).	Yes.	Monitor, record, and report in accordance with Condition 30.

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)

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, 60.334(a), (b), (d), & (g)	EU ID 5 does not use a continuous emissions monitoring system (CEMS) or water/steam injection.
40 CFR 60 Subpart GG, 60.334(e) & (f)	EU ID 5 commenced construction before July 8, 2004.
40 CFR 60 Subpart GG, 60.334(h)(2)	No fuel bound nitrogen allowance is claimed for EU ID 5, so nitrogen content of the fuel does not have to be monitored.
40 CFR 60 Subpart KKKK	EU ID 5 was not constructed, modified, or reconstructed after February 18, 2005.
40 CFR 63 Subpart YYYY	Anna Platform is not 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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU IDs 7, 8, and 9 // Base Scenario
2.	Date installation/construction commenced ¹	1968
3.	Date installed	1968
4.	Emission Unit serial number	Unknown (A-PM-0390, A-PM-0400, A-PM-0410)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Waukesha Triplex 1197G
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	150 hp, each
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 YYYYY 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)
Natural Gas	Approximately 0.86 Mscf/hr, each

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ, Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 10, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	Change oil and filter every 1,440 hours of operation or annually, whichever comes first; inspect air cleaner every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. Sources have the option to utilize an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU IDs 7, 8, and 9 were not constructed, modified, or reconstructed after June 12, 2006.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU IDs 7, 8, and 9 are not subject to any numerical emission standards.
40 CFR Part 63 Subpart ZZZZ, 63.6612, 63.6615, 63.6620, 63.6625(a)-(c), (f), 63.6630, 63.6635, 63.6640(f), 63.6645(g) & (h), 63.6650(a)-(e), (g), & (h), 63.6655(a)-(c) & (f)	EU IDs 7, 8, and 9 are not emergency engines. EU IDs 7, 8, and 9 are subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU IDs 10, 11, and 12 // Base Scenario
2.	Date installation/construction commenced ¹	1968
3.	Date installed	1968
4.	Emission Unit serial number	Unknown (A-PM-0440, A-PM-0450, A-PM-0460)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Waukesha Triplex 1905G
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	180 hp, each
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 YYYYY 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)
Natural Gas	Approximately 1.0 Mscf/hr, each

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 10, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	Change oil and filter every 1,440 hours of operation or annually, whichever comes first; inspect air cleaner every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. Sources have the option to utilize an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU IDs 10, 11, and 12 were not constructed, modified, or reconstructed after June 12, 2006.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU IDs 10, 11, and 12 are not subject to any numerical emission standards.
40 CFR Part 63 Subpart ZZZZ, 63.6612, 63.6615, 63.6620, 63.6625(a)-(c), (f), 63.6630, 63.6635, 63.6640(f), 63.6645(g) & (h), 63.6650(a)-(e), (g), & (h), 63.6655(a)-(c) & (f)	EU IDs 10, 11, and 12 are not emergency engines. EU IDs 10, 11, and 12 are subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 13 // Base Scenario
2.	Date installation/construction commenced ¹	1982
3.	Date installed	1982
4.	Emission Unit serial number	Unknown (A-PM-0028)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Caterpillar G-399
7.	Type of combustion device	Emergency Engine
8.	Rated design capacity (horsepower rating for engines)	750 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 YYYYY 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)
Natural Gas	Approximately 4.3 Mscf/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.1.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.1.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48. <i>Note: EU ID 13 has been redesignated as an “existing emergency stationary” RICE.</i>
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a) & (f), Table 2d, Item 11, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	Change oil and filter every 2,160 hours of operation or annually, whichever comes first; inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary. Evaluate the remote status every 12 months. Sources have the option to utilize an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i> <i>Note: EU ID 13 has been redesignated as an “existing emergency stationary” RICE. Therefore, 40 CFR 63.6603(f) is not applicable, and the applicable item in Table 2d is Item 5 which has different time frames for the requirements.</i>
New Condition	40 CFR 63.6625(f), Subpart ZZZZ	NESHAP Subpart ZZZZ, Emergency Engine Requirements	Install a non-resettable hour meter if one is not already installed.	Yes	Annual Compliance Audit. <i>EU ID 13 has been redesignated as an “existing emergency stationary” RICE.</i>

FORM B2

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

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
New Condition	40 CFR 63.6640(f), Subpart ZZZZ	NESHAP Subpart ZZZZ, Emergency Engine Requirements	In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6625(f)(1) through (4), is prohibited.	Yes	Keep records of hours as required in 40 CFR 63.6655(f). <i>EU ID 13 has been redesignated as an "existing emergency stationary" RICE.</i>
New Condition	40 CFR 63.6655(f), Subpart ZZZZ	NESHAP Subpart ZZZZ, Emergency Engine Requirements	Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.	Yes	Annual Compliance Audit. <i>EU ID 13 has been redesignated as an "existing emergency stationary" RICE.</i>

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)

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	EU ID 13 was not constructed, modified, or reconstructed after June 12, 2006.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU ID 13 is not subject to any numerical emission standards.
40 CFR Part 63 Subpart ZZZZ, 63.6612, 63.6615, 63.6620, 63.6625(a)-(c), 63.6630, 63.6635, 63.6645(g) & (h), 63.6650(a)-(e), (g), & (h), 63.6655(a)-(c)	EU ID 13 is subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas. Anna Platform does not supply power to another entity.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 14 // Base Scenario
2.	Date installation/construction commenced ¹	1966
3.	Date installed	1966
4.	Emission Unit serial number	Unknown (A-PM-0880)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Waukesha 1197D
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	192 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 YYYYY 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	Approximately 9.8 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.3.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.3.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Condition 14.1.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(c)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.

FORM B2

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

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
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 1, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	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 an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU ID 14 was not constructed, modified, or reconstructed after July 11, 2005.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU ID 14 is not subject to any numerical emission standards.
40 CFR Part 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	Anna Platform is not accessible by the FAHS. Per 40 CFR 63.6603(b), EU ID 14 is not subject to numerical CO emission limitations but must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d.
40 CFR Part 63 Subpart ZZZZ, 63.6625(a)-(d) & (f), 63.6640(f), 63.6650(g) & (h), 63.6655(b), (c) & (f)	EU ID 14 is not an emergency engines. EU ID 14 is subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 15 // Base Scenario
2.	Date installation/construction commenced ¹	1984
3.	Date installed	1984
4.	Emission Unit serial number	Unknown (A-PM-0034)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Caterpillar DE-3208
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	235 hp
9.	Rated design capacity (heat input, MMBtu/hr rating for turbines)	N/A
10.	If used for power generation, electrical output (kW)	175 kW

- ^{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 YYYYY 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	Approximately 12 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.3.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.3.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Condition 14.1.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 1, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	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 an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU ID 15 was not constructed, modified, or reconstructed after July 11, 2005.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU ID 15 is not subject to any numerical emission standards.
40 CFR Part 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	Anna Platform is not accessible by the FAHS. Per 40 CFR 63.6603(b), EU ID 15 is not subject to numerical CO emission limitations but must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d.
40 CFR Part 63 Subpart ZZZZ, 63.6625(a)-(d) & (f), 63.6640(f), 63.6650(g) & (h), 63.6655(b), (c) & (f)	EU ID 15 is not an emergency engines. EU ID 15 is subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 16 // Base Scenario
2.	Date installation/construction commenced ¹	2007
3.	Date installed	2007
4.	Emission Unit serial number	RG6135L000166 (A-CR-0650)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	John Deere 6135
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	500 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 YYYYY 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	Approximately 26 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.3.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.3.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Condition 14.1.
AQ0062TVP04 – Condition 25	40 CFR 60.12, Subpart A	NSPS Subpart A Concealment of Emissions	Do not build, erect, install, or use any article, machine, equipment, or process that conceals emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 31	40 CFR 60.4200(a)(2)(i), 60.4218, Table 8 Subpart III	NSPS Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to Subpart III, and applicable provisions of Subpart III.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 32	40 CFR 60.4206 & 60.4211(a), Subpart III	NSPS Subpart III Good Air Pollution Control Practices	Operate and maintain the unit according to the manufacturer's written instructions, only change emission-related settings that are permitted by the manufacturer, and meet the requirements of Condition 34.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 33	40 CFR 60.4216(f), Subpart III	NSPS Subpart III Fuel Requirements	Fuels mixed with lubricating oil in volumes of up to 1.75 percent of the total fuel are permitted. The sulfur content of the used lubricating oil must be less than 200 ppm.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 34	40 CFR 60.4216(c), 60.4205(a), Subpart IIII	NSPS Subpart IIII Emission Standards	Do not exceed the following applicable exhaust emission standards: 1.3 g/kW-hr for HC; 9.2 g/kW-hr for NO _x ; 11.4 g/kW-hr for CO; and 0.54 g/kW-hr for PM.	Yes.	Purchase an engine certified to the emissions standards. The engine is certified as a Tier 1 nonroad engine. Monitor, record, and report in accordance with Conditions 35 and 36. EU ID 16 was manufactured after April 1, 2006 but before the 2007 model year and was installed at the stationary source in 2007.
AQ0062TVP04 – Condition 44.2	40 CFR 63.6585(c), 63.6590(a)(2)(ii) & (c)(1), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for new stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.	Yes.	Meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII in Conditions 31 through 37.

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)

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, 60.4204(b) & (c), 60.4205(b)-(e), 60.4207, 60.4209, 60.4211(c) & (d), 60.4213, 60.4214	EU ID 16 has a displacement less than 10 liters per cylinder, was manufactured after April 1, 2006 but before the 2007 model year, is not required to conduct performance tests, is a certified engine, is not a fire pump engine or an emergency engine and is not equipped with a particulate filter, and is located in an area of Alaska not accessible by the FAHS.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 17 // Base Scenario
2.	Date installation/construction commenced ¹	1988
3.	Date installed	1988
4.	Emission Unit serial number	Unknown (A-CR-0651)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Caterpillar D-3406B
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	325 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 YYYYY 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	Approximately 17 gal/ hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.3.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.3.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Condition 14.1.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 1, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	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 an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU ID 17 was not constructed, modified, or reconstructed after July 11, 2005.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU ID 17 is not subject to any numerical emission standards.
40 CFR Part 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	Anna Platform is not accessible by the FAHS. Per 40 CFR 63.6603(b), EU ID 17 is not subject to numerical CO emission limitations but must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d.
40 CFR Part 63 Subpart ZZZZ, 63.6625(a)-(c) & (f), 63.6640(f), 63.6650(g) & (h), 63.6655(b), (c) & (f)	EU ID 17 is not an emergency engines. EU ID 17 is subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 18 // Base Scenario
2.	Date installation/construction commenced ¹	1979
3.	Date installed	1979
4.	Emission Unit serial number	Unknown (A-PM-0021)
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer and model number	Detroit Diesel D6-71
7.	Type of combustion device	Engine
8.	Rated design capacity (horsepower rating for engines)	165 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 YYYYY 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	Approximately 8.4 gal/hr

12.	Describe any specific modifications to the emission unit that must be addressed in the permit: N/A
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FORM B2

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

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor and report in accordance with Condition 1.3.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor and report in accordance with Condition 6.3.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Condition 14.1.
AQ0062TVP04 – Condition 38.2	40 CFR 63.6665 & Table 8, Subpart ZZZZ	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with Subpart A in Table 8 to NESHAP Subpart ZZZZ.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 44.1	40 CFR 63.6585(c), 63.6590(a)(1)(iii), & 63.6605(a), Subpart ZZZZ	NESHAPs Subpart ZZZZ Applicability	Comply with all applicable requirements of NESHAP Subpart ZZZZ for existing stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions at all times.	Yes.	Monitor, record, and report in accordance with Conditions 45 through 48.
AQ0062TVP04 – Condition 45.1	40 CFR 63.6605(b), Subpart ZZZZ	NESHAPs Subpart ZZZZ Good Air Pollution Control Practices	At all times operate and maintain the unit in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.

FORM B2

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

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
AQ0062TVP04 – Condition 45.2	40 CFR 63.6625(e)(4), 63.6640(a) & Table 6 Item 9, Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation and Maintenance Requirements	Operate and maintain the stationary RICE and after-treatment control device according to either the manufacturer's emission-related written instructions or a maintenance plan.	Yes.	Record and report in accordance with Conditions 47 and 48.
AQ0062TVP04 – Condition 45.3	40 CFR 63.6625(h), Subpart ZZZZ	NESHAPs Subpart ZZZZ Operation Requirements	Minimize the engine's time spent at idle during startup and the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 46	40 CFR 63.6603(a), Table 2d, Item 1, Subpart ZZZZ	NESHAPs Subpart ZZZZ Work and Management Practices Standards and Monitoring	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 an oil analysis program to extend the oil change requirement.	Yes.	Record and report in accordance with Conditions 47 and 48. <i>Regulation change – please capture the new requirement for oil changes to be within 1 year + 30 days instead of annually.</i>

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)

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	EU ID 18 was not constructed, modified, or reconstructed after July 11, 2005.
40 CFR Part 63 Subpart ZZZZ, 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU ID 18 is not subject to any numerical emission standards.
40 CFR Part 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	Anna Platform is not accessible by the FAHS. Per 40 CFR 63.6603(b), EU ID 18 is not subject to numerical CO emission limitations but must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d.
40 CFR Part 63 Subpart ZZZZ, 63.6625(a)-(c) & (f), 63.6640(f), 63.6650(g) & (h), 63.6655(b), (c) & (f)	EU ID 18 is not an emergency engines. EU ID 18 is subject only to maintenance practices and need not perform monitoring or performance tests, nor use CEMS or CPMS. Anna Platform does not use landfill/digester gas.

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 19 // Base Scenario
2.	Date installation/construction commenced	1966
3.	Date installed	1966
4.	Emission Unit serial number	Unknown (A-SP-SF/HP/LP)
5.	Special control requirements? [if yes, describe]	No
6.	Description of process: HP/LP Flare/Pilot – Natural Gas 28 MMscf/day (includes emergency operation)	
7.	Continuous or batch process? [if batch, maximum batches per hour]	N/A

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

Material	Maximum design capacity (lbs/batch or lbs/hr)
Platform Gas	Approximately 28 MMscf/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.

FORM B5

Emission Unit Detail Form - Miscellaneous Emission Units

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
AQ0062TVP04 – Condition 1	18 AAC 50.055(a)(1)	Visible Emissions Standard	Do not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor, record, and report in accordance with Condition 1.4.
AQ0062TVP04 – Condition 6	18 AAC 50.055(b)(1)	Particulate Matter (PM) Emissions 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.	Monitor, record, and report in accordance with Condition 6.4.
AQ0062TVP04 – Condition 14	18 AAC 50.055(c)	Sulfur Compound Emission Standard	Do not cause or allow sulfur compound emissions, expressed as SO ₂ , to exceed 500 ppm averaged over three hours.	Yes.	Monitor, record, and report in accordance with Conditions 14.3 through 14.6.
AQ0062TVP04 – Condition 60	18 AAC 50.326(j)(3), 50.346(b)(5)	Good Air Pollution Control Practices	Perform regular maintenance according to manufacturer's or operator's maintenance procedures, keep record of significant maintenance, and keep a copy of manufacturer's or operator's maintenance procedures.	Yes.	Monitor and record in accordance with Conditions 60.1 through 60.3.

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

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
No shields requested.	

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: AQ0062TVP04

1.	Emission Unit ID Number // Operating Scenario	EU ID 27 // Base Scenario
2.	Date installation/construction commenced	2007
3.	Date installed	2007
4.	Emission Unit serial number	Unknown (A-V-0580)
5.	Special control requirements? [if yes, describe]	No
6.	Description of process: Triethylene glycol (TEG) Dehydration Vent – 1 vent Glycol dehydration unit is tied into the platform's vapor recovery system. Heat for regeneration is provided from an electric source.	
7.	Continuous or batch process? [if batch, maximum batches per hour]	N/A

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

Material	Maximum design capacity (lbs/batch or lbs/hr)
Platform Gas	9 MMscf/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.

FORM B5

Emission Unit Detail Form - Miscellaneous Emission Units

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
AQ0062TVP04 – Condition 38.1	40 CFR 63.764(a) & Table 2, Subpart HH	NESHAP Subpart A Applicability	Comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 2 to NESHAP Subpart HH.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 39.1	40 CFR 63.760(c), Subpart HH	NESHAP Subpart HH Major Source Determination	Update the major source determination within 1 year of the prior determination, and each year thereafter, using gas composition data measured during the preceding 12 months.	Yes.	Not applicable. Anna Platform potential emissions of HAPs do not exceed 5 tons per year of a single HAP or 12.5 tons per year of a combination of HAP.
AQ0062TVP04 – Condition 39.2	40 CFR 63.762(a) – (d), Subpart HH	NESHAP Subpart HH Affirmative Defense	Comply with the provisions of 40 CFR 63.762 if electing to assert an affirmative defense for violations of emission standards during malfunction.	Yes.	Not applicable. Anna Platform does elect to assert an affirmative defense.
AQ0062TVP04 – Condition 39.3	40 CFR 63.764(j), Subpart HH	NESHAP Subpart HH Good Air Pollution Control Practices	At all times operate and maintain the unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 40	40 CFR 63.764(d) & (e), Subpart HH	NESHAP Subpart HH General Standards	Determine the optimum glycol circulation rate using the equation in 40 CFR 63.764(d)(2)(i) if the unit is not exempt from the requirements.	Yes.	Monitor, record, and report in accordance with Conditions 41 through 43.

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 - Anna Platform**

EU ID	Emission Unit Name	Emissions (tpy)						
		NO _x	CO	PM ₁₀	SO ₂	VOC	CO _{2e}	HAP ¹
Significant Units								
2	Solar AC #3	16.9	4.3	0.3	0.2	0.1	6,202	5.4E-02
3	Solar Bing #1	35.9	13.7	0.4	0.2	0.1	7,601	6.7E-02
4	Solar Bing #2	35.9	13.7	0.4	0.2	0.1	7,601	6.7E-02
5	Solar AC #2	31.2	10.5	0.4	1.8	0.1	6,764	5.9E-02
7	Kobe Pump Drive #1	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
8	Kobe Pump Drive #2	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
9	Kobe Pump Drive #3	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
10	Kobe Pump Drive #7	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
11	Kobe Pump Drive #8	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
12	Kobe Pump Drive #9	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
13	Emergency Generator Drive	3.4	5.6	0.0	4.5E-03	0.0	176	0.0
14	Fire Water Pump Drive	26.1	5.6	1.9	3.0	2.1	963	2.3E-02
15	Backup Generator Drive	31.9	6.9	2.3	3.7	2.5	1,179	2.8E-02
16	SeaTrax West Crane	15.7	2.7	0.3	7.8	0.5	2,508	5.9E-02
17	Sea King East Crane	44.1	9.5	3.1	5.1	3.5	1,630	3.9E-02
18	Air Compressor Drive	22.4	4.8	1.6	2.6	1.8	828	2.0E-02
19	Safety/Operating Flares	1.9	8.7	0.7	8.4E-02	18.5	3,276	5.9E-02
27	TEG Dehydration Unit	0	0	0	0	0	0	0
Significant Unit Total		344.1	214.9	12.2	24.8	30.4	42,789	1.6
Insignificant Units								
28	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
29	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
30	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
N/A	Boiler	1.3	1.1	0.1	5.3E-02	6.9E-02	2,052	2.4E-02
N/A	Tank 2	0	0	0	0	4.2E-03	0	4.5E-04
N/A	Tank 3	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 4	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 5	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 7	0	0	0	0	0.3	0	2.1E-02
N/A	Tank 8	0	0	0	0	0.3	0	2.1E-02
N/A	Upper Center Bay Day Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	West Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	East Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Fire Water Pump Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Emergency Generator Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Center Bay Lube Oil Tank	0	0	0	0	0	0	0
N/A	Center Bay Demulsifier Tank	0	0	0	0	0	0	0
N/A	Center Bay Paraffin Dispersant Tank	0	0	0	0	0	0	0
N/A	Center Bay Test Chemical Tank	0	0	0	0	0	0	0
Insignificant Unit Total		1.6	1.4	0.1	0.1	4.5	2,667	0.3
Total (Significant and Insignificant)		345.8	216.3	12.3	24.8	34.9	45,456	2.0
Major/Minor		Major	Major	Minor	Minor	Minor	N/A	N/A
Total Assessable Emissions		634.1						

Notes:

¹ The highest individual HAP is Formaldehyde with HAP emissions of 1.5 tpy.

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

EU ID	Emission Unit Name	Emissions (tpy)						
		NO _x	CO	PM ₁₀	SO ₂	VOC	CO _{2e}	HAP
Significant Units								
2	Solar AC #3	16.9	4.3	0.3	0.2	0.1	6,202	5.4E-02
3	Solar Bing #1	35.9	13.7	0.4	0.2	0.1	7,601	6.7E-02
4	Solar Bing #2	35.9	13.7	0.4	0.2	0.1	7,601	6.7E-02
5	Solar AC #2	31.2	10.5	0.4	1.8	0.1	6,764	5.9E-02
7	Kobe Pump Drive #1	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
8	Kobe Pump Drive #2	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
9	Kobe Pump Drive #3	11.9	19.6	0.1	1.6E-02	0.2	615	0.2
10	Kobe Pump Drive #7	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
11	Kobe Pump Drive #8	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
12	Kobe Pump Drive #9	14.3	23.5	0.1	1.9E-02	0.2	739	0.2
13	Emergency Generator Drive	59.7	97.8	0.5	7.9E-02	0.8	3,077	0.0
14	Fire Water Pump Drive	26.1	5.6	1.9	3.0	2.1	963	2.3E-02
15	Backup Generator Drive	31.9	6.9	2.3	3.7	2.5	1,179	2.8E-02
16	SeaTrax West Crane	15.7	2.7	0.3	7.8	0.5	2,508	5.9E-02
17	Sea King East Crane	44.1	9.5	3.1	5.1	3.5	1,630	3.9E-02
18	Air Compressor Drive	22.4	4.8	1.6	2.6	1.8	828	2.0E-02
19	Safety/Operating Flares	1.9	8.7	0.7	8.4E-02	18.5	3,276	5.9E-02
27	TEG Dehydration Unit	0	0	0	0	0	0	0
Significant Unit Total		400.4	307.1	12.7	24.8	31.2	45,691	1.65
Insignificant Units								
28	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
29	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
30	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
N/A	Boiler	1.3	1.1	0.1	5.3E-02	6.9E-02	2,052	2.4E-02
N/A	Tank 2	0	0	0	0	4.2E-03	0	4.5E-04
N/A	Tank 3	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 4	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 5	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 7	0	0	0	0	0.3	0	2.1E-02
N/A	Tank 8	0	0	0	0	0.3	0	2.1E-02
N/A	Upper Center Bay Day Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	West Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	East Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Fire Water Pump Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Emergency Generator Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Center Bay Lube Oil Tank	0	0	0	0	0	0	0
N/A	Center Bay Demulsifier Tank	0	0	0	0	0	0	0
N/A	Center Bay Paraffin Dispersant Tank	0	0	0	0	0	0	0
N/A	Center Bay Test Chemical Tank	0	0	0	0	0	0	0
Insignificant Unit Total		1.6	1.4	0.1	0.1	4.5	2,667	0.3
Total (Significant and Insignificant)		402.0	308.5	12.8	24.9	35.6	48,358	2.0

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

EU ID	Emission Unit Name	Emissions (tpy)						
		NO _x	CO	PM ₁₀	SO ₂	VOC	CO _{2e}	HAP
Significant Units								
2	Solar AC #3	13.6	3.5	0.3	0.1	8.9E-02	4,967	4.4E-02
3	Solar Bing #1	33.5	12.8	0.4	0.2	0.1	7,100	6.2E-02
4	Solar Bing #2	35.0	13.3	0.4	0.2	0.1	7,424	6.5E-02
5	Solar AC #2	6.2	2.1	7.4E-02	4.0E-02	2.4E-02	1,313	1.1E-02
7	Kobe Pump Drive #1	0.8	1.3	6.6E-03	1.0E-03	1.0E-02	40	1.1E-02
8	Kobe Pump Drive #2	0.3	0.5	2.7E-03	4.2E-04	4.1E-03	16	4.5E-03
9	Kobe Pump Drive #3	0.7	1.1	6.0E-03	9.3E-04	9.1E-03	36	1.0E-02
10	Kobe Pump Drive #7	0.4	0.6	3.1E-03	4.8E-04	4.8E-03	19	5.2E-03
11	Kobe Pump Drive #8	0.4	0.6	3.3E-03	5.1E-04	5.0E-03	20	5.5E-03
12	Kobe Pump Drive #9	0.4	0.7	3.6E-03	5.6E-04	5.5E-03	22	6.0E-03
13	Emergency Generator Drive	4.8E-03	7.8E-03	4.1E-05	6.3E-06	6.2E-05	0.2	6.8E-05
14	Fire Water Pump Drive	6.5E-03	1.4E-03	4.6E-04	7.6E-04	5.2E-04	0.2	5.7E-06
15	Backup Generator Drive	2.8E-02	6.0E-03	2.0E-03	3.2E-03	2.2E-03	1	2.5E-05
16	SeaTrax West Crane	0.2	4.2E-02	4.9E-03	0.1	7.3E-03	39	9.3E-04
17	Sea King East Crane	0.5	0.1	3.6E-02	5.9E-02	4.0E-02	19	4.4E-04
18	Air Compressor Drive	7.4E-03	1.6E-03	5.3E-04	8.6E-04	5.9E-04	0.3	6.5E-06
19	Safety/Operating Flares	0.5	2.4	0.2	2.3E-02	5.1	902	1.6E-02
27	TEG Dehydration Unit	0	0	0	0	0	0	0
Significant Unit Total		92.6	39.1	1.4	0.8	5.5	21,917	0.2
Insignificant Units								
28	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
29	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
30	Heater	0.1	0.1	9.5E-03	5.3E-03	6.9E-03	205	2.4E-03
N/A	Boiler	1.3	1.1	0.1	5.3E-02	6.9E-02	2,052	2.4E-02
N/A	Tank 2	0	0	0	0	4.2E-03	0	4.5E-04
N/A	Tank 3	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 4	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 5	0	0	0	0	1.3	0	8.2E-02
N/A	Tank 7	0	0	0	0	0.3	0	2.1E-02
N/A	Tank 8	0	0	0	0	0.3	0	2.1E-02
N/A	Upper Center Bay Day Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	West Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	East Crane Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Fire Water Pump Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Emergency Generator Tank	0	0	0	0	1.1E-04	0	1.1E-05
N/A	Center Bay Lube Oil Tank	0	0	0	0	0	0	0
N/A	Center Bay Demulsifier Tank	0	0	0	0	0	0	0
N/A	Center Bay Paraffin Dispersant Tank	0	0	0	0	0	0	0
N/A	Center Bay Test Chemical Tank	0	0	0	0	0	0	0
Insignificant Unit Total		1.6	1.4	0.1	0.1	4.5	2,667	0.3
Total (Significant and Insignificant)		94.2	40.4	1.6	0.8	10.0	24,584	0.6

Table D-2a. HAPs Summary - Limited Potential Emissions
Hilcorp Alaska, LLC - Anna Platform

CAS No.	Hazardous Air Pollutant	Limited Potential Emissions (tpy)																				Insig. Units		Total
		Significant Units																			Tanks	Heaters/ Boiler		
		EU ID 2	EU ID 3	EU ID 4	EU ID 5	EU ID 7	EU ID 8	EU ID 9	EU ID 10	EU ID 11	EU ID 12	EU ID 13	EU ID 14	EU ID 15	EU ID 16	EU ID 17	EU ID 18	EU ID 19	EU ID 27					
75070	Acetaldehyde	2.1E-03	2.6E-03	2.6E-03	2.1E-03	1.5E-02	1.5E-02	1.5E-02	1.8E-02	1.8E-02	1.8E-02	4.2E-03	4.5E-03	5.5E-03	1.2E-02	7.6E-03	3.9E-03	8.6E-04	--	--	--	0.14		
107028	Acrolein	3.4E-04	4.2E-04	4.2E-04	3.4E-04	1.4E-02	1.4E-02	1.4E-02	1.7E-02	1.7E-02	1.7E-02	3.9E-03	5.4E-04	6.7E-04	1.4E-03	9.2E-04	4.7E-04	2.0E-04	--	--	--	0.10		
71432	Benzene	6.4E-04	7.8E-04	7.8E-04	8.2E-04	8.3E-03	8.3E-03	8.3E-03	1.0E-02	1.0E-02	1.0E-02	2.4E-03	5.5E-03	6.7E-03	1.4E-02	9.3E-03	4.7E-03	3.2E-03	0	6.2E-02	3.4E-05	0.17		
106990	1,3 Butadiene	2.3E-05	2.8E-05	2.8E-05	7.4E-05	3.5E-03	3.5E-03	3.5E-03	4.2E-03	4.2E-03	4.2E-03	9.9E-04	2.3E-04	2.8E-04	6.0E-04	3.9E-04	2.0E-04	--	--	--	0.03			
56235	Carbon tetrachloride	--	--	--	--	9.3E-05	9.3E-05	9.3E-05	1.1E-04	1.1E-04	1.1E-04	2.7E-05	--	--	--	--	--	--	--	--	--	6.4E-04		
108907	Chlorobenzene	--	--	--	--	6.8E-05	6.8E-05	6.8E-05	8.1E-05	8.1E-05	8.1E-05	1.9E-05	--	--	--	--	--	--	--	--	--	4.7E-04		
67663	Chloroform	--	--	--	--	7.2E-05	7.2E-05	7.2E-05	8.6E-05	8.6E-05	8.6E-05	2.1E-05	--	--	--	--	--	--	--	--	--	5.0E-04		
98828	Cumene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.4E-04	4.4E-04		
25321226	Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-05	2.0E-05	
75343	1,1-Dichloroethane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	1.7E-05	--	--	--	--	--	--	--	--	--	4.1E-04		
107062	1,2-Dichloroethane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	1.7E-05	--	--	--	--	--	--	--	--	--	4.1E-04		
78875	1,2-Dichloropropane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	1.7E-05	--	--	--	--	--	--	--	--	--	4.1E-04		
542756	1,3-Dichloropropene	--	--	--	--	6.7E-05	6.7E-05	6.7E-05	8.0E-05	8.0E-05	8.0E-05	1.9E-05	--	--	--	--	--	--	--	--	--	4.6E-04		
100414	Ethyl benzene	1.7E-03	2.1E-03	2.1E-03	2.6E-03	1.3E-04	1.3E-04	1.3E-04	1.6E-04	1.6E-04	1.6E-04	3.7E-05	--	--	--	--	2.9E-02	--	2.7E-03	--	--	0.04		
1006934	Ethylene dibromide (Dibromoethane)	--	--	--	--	1.1E-04	1.1E-04	1.1E-04	1.3E-04	1.3E-04	1.3E-04	3.2E-05	--	--	--	--	--	--	--	--	--	7.7E-04		
5000	Formaldehyde	3.8E-02	4.6E-02	4.6E-02	3.8E-02	1.1E-01	1.1E-01	1.1E-01	1.3E-01	1.3E-01	1.3E-01	3.1E-02	6.9E-03	8.5E-03	1.8E-02	1.2E-02	6.0E-03	2.3E-02	--	--	1.2E-03	1.0		
110543	n-Hexane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8E-04	0	1.6E-01	2.9E-02	--	0.19		
67561	Methanol	--	--	--	--	1.6E-02	1.6E-02	1.6E-02	1.9E-02	1.9E-02	1.9E-02	4.6E-03	--	--	--	--	--	--	--	--	--	0.11		
75092	Methylene chloride (Dichloromethane)	--	--	--	--	2.2E-04	2.2E-04	2.2E-04	2.6E-04	2.6E-04	2.6E-04	6.2E-05	--	--	--	--	--	--	--	--	--	1.5E-03		
N/A	Polycyclic Organic Matter (POM)	1.2E-04	1.4E-04	1.4E-04	2.5E-04	7.4E-04	7.4E-04	7.4E-04	8.9E-04	8.9E-04	8.9E-04	2.1E-04	9.9E-04	1.2E-03	2.6E-03	1.7E-03	8.5E-04	6.0E-05	--	--	1.4E-06	0.01		
91203	Naphthalene	6.9E-05	8.4E-05	8.4E-05	1.8E-04	5.1E-04	5.1E-04	5.1E-04	6.1E-04	6.1E-04	6.1E-04	1.5E-04	--	--	--	--	--	2.2E-04	--	--	9.9E-06	4.2E-03		
75569	Propylene Oxide	1.5E-03	1.9E-03	1.9E-03	1.5E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.8E-03		
100425	Styrene	--	--	--	--	6.3E-05	6.3E-05	6.3E-05	7.5E-05	7.5E-05	7.5E-05	1.8E-05	--	--	--	--	--	--	--	--	--	4.3E-04		
79345	1,1,2,2-Tetrachloroethane	--	--	--	--	1.3E-04	1.3E-04	1.3E-04	1.6E-04	1.6E-04	1.6E-04	3.8E-05	--	--	--	--	--	--	--	--	--	9.2E-04		
108883	Toluene	6.9E-03	8.4E-03	8.4E-03	6.9E-03	2.9E-03	2.9E-03	2.9E-03	3.5E-03	3.5E-03	3.5E-03	8.4E-04	2.4E-03	2.9E-03	6.3E-03	4.1E-03	2.1E-03	1.2E-03	0	5.5E-02	5.5E-05	0.12		
79005	1,1,2-Trichloroethane	--	--	--	--	8.0E-05	8.0E-05	8.0E-05	9.7E-05	9.7E-05	9.7E-05	2.3E-05	--	--	--	--	--	--	--	--	--	5.5E-04		
75014	Vinyl chloride	--	--	--	--	3.8E-05	3.8E-05	3.8E-05	4.5E-05	4.5E-05	4.5E-05	1.1E-05	--	--	--	--	--	--	--	--	--	2.6E-04		
106423	Xylenes (isomers and mixtures)	3.4E-03	4.2E-03	4.2E-03	3.4E-03	1.0E-03	1.0E-03	1.0E-03	1.2E-03	1.2E-03	1.2E-03	2.9E-04	1.7E-03	2.1E-03	4.4E-03	2.8E-03	1.4E-03	5.8E-04	--	1.8E-03	--	0.04		
N/A	Arsenic Compounds	--	--	--	3.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3E-06	3.9E-05	
N/A	Beryllium Compounds	--	--	--	1.0E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-07	1.2E-06	
N/A	Cadmium Compounds	--	--	--	1.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-05	3.3E-05	
N/A	Chromium Compounds	--	--	--	3.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3E-05	5.8E-05	
N/A	Cobalt Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-06	1.4E-06	
N/A	Lead Compounds	--	--	--	4.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.1E-06	5.3E-05	
N/A	Manganese Compounds	--	--	--	2.5E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.2E-06	2.6E-03	
N/A	Mercury Compounds	--	--	--	3.9E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-06	8.1E-06	
N/A	Nickel Compounds	--	--	--	1.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.4E-05	4.9E-05	
N/A	Selenium Compounds	--	--	--	8.1E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.9E-07	8.1E-05	
Total		0.05	0.07	0.07	0.06	0.2	0.2	0.2	0.2	0.2	0.2	0.05	0.02	0.03	0.06	0.04	0.02	0.06	0.00	0.3	0.03	2.0		

Table D-2b. HAPs Summary - Unlimited Potential Emissions
Hilcorp Alaska, LLC - Anna Platform

CAS No.	Hazardous Air Pollutant	Unlimited Potential Emissions (tpy)																				Insig. Units		Total
		Significant Units																			Tanks	Heaters/ Boiler		
		EU ID 2	EU ID 3	EU ID 4	EU ID 5	EU ID 7	EU ID 8	EU ID 9	EU ID 10	EU ID 11	EU ID 12	EU ID 13	EU ID 14	EU ID 15	EU ID 16	EU ID 17	EU ID 18	EU ID 19	EU ID 27					
75070	Acetaldehyde	2.1E-03	2.6E-03	2.6E-03	2.1E-03	1.5E-02	1.5E-02	1.5E-02	1.8E-02	1.8E-02	1.8E-02	7.3E-02	4.5E-03	5.5E-03	1.2E-02	7.6E-03	3.9E-03	8.6E-04	--	--	--	0.21		
107028	Acrolein	3.4E-04	4.2E-04	4.2E-04	3.4E-04	1.4E-02	1.4E-02	1.4E-02	1.7E-02	1.7E-02	1.7E-02	6.9E-02	5.4E-04	6.7E-04	1.4E-03	9.2E-04	4.7E-04	2.0E-04	--	--	--	0.17		
71432	Benzene	6.4E-04	7.8E-04	7.8E-04	8.2E-04	8.3E-03	8.3E-03	8.3E-03	1.0E-02	1.0E-02	1.0E-02	4.2E-02	5.5E-03	6.7E-03	1.4E-02	9.3E-03	4.7E-03	3.2E-03	0	6.2E-02	3.4E-05	0.21		
106990	1,3 Butadiene	2.3E-05	2.8E-05	2.8E-05	7.4E-05	3.5E-03	3.5E-03	3.5E-03	4.2E-03	4.2E-03	4.2E-03	1.7E-02	2.3E-04	2.8E-04	6.0E-04	3.9E-04	2.0E-04	--	--	--	0.04			
56235	Carbon tetrachloride	--	--	--	--	9.3E-05	9.3E-05	9.3E-05	1.1E-04	1.1E-04	1.1E-04	4.7E-04	--	--	--	--	--	--	--	--	--	1.1E-03		
108907	Chlorobenzene	--	--	--	--	6.8E-05	6.8E-05	6.8E-05	8.1E-05	8.1E-05	8.1E-05	3.4E-04	--	--	--	--	--	--	--	--	--	7.9E-04		
67663	Chloroform	--	--	--	--	7.2E-05	7.2E-05	7.2E-05	8.6E-05	8.6E-05	8.6E-05	3.6E-04	--	--	--	--	--	--	--	--	--	8.4E-04		
98828	Cumene	--	--	--	--	--	--	--	--	--	--	1.7E-05	--	--	--	--	--	--	--	4.4E-04	--	4.6E-04		
25321226	Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-05	2.0E-05		
75343	1,1-Dichloroethane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	3.0E-04	--	--	--	--	--	--	--	--	--	6.9E-04		
107062	1,2-Dichloroethane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	3.0E-04	--	--	--	--	--	--	--	--	--	6.9E-04		
78875	1,2-Dichloropropane	--	--	--	--	5.9E-05	5.9E-05	5.9E-05	7.1E-05	7.1E-05	7.1E-05	3.0E-04	--	--	--	--	--	--	--	--	--	6.9E-04		
542756	1,3-Dichloropropene	--	--	--	--	6.7E-05	6.7E-05	6.7E-05	8.0E-05	8.0E-05	8.0E-05	3.3E-04	--	--	--	--	--	--	--	--	--	7.7E-04		
100414	Ethyl benzene	1.7E-03	2.1E-03	2.1E-03	2.6E-03	1.3E-04	1.3E-04	1.3E-04	1.6E-04	1.6E-04	1.6E-04	6.5E-04	--	--	--	--	--	--	--	2.7E-03	--	0.01		
1006934	Ethylene dibromide (Dibromoethane)	--	--	--	0.0E+00	1.1E-04	1.1E-04	1.1E-04	1.3E-04	1.3E-04	1.3E-04	5.6E-04	--	--	--	--	--	2.9E-02	--	--	--	0.03		
5000	Formaldehyde	3.8E-02	4.6E-02	4.6E-02	3.8E-02	1.1E-01	1.1E-01	1.1E-01	1.3E-01	1.3E-01	1.3E-01	5.4E-01	6.9E-03	8.5E-03	1.8E-02	1.2E-02	--	--	--	--	1.2E-03	1.46		
110543	n-Hexane	--	--	--	--	--	--	--	--	--	--	4.6E-03	--	--	--	--	6.0E-03	2.3E-02	0	1.6E-01	2.9E-02	0.23		
67561	Methanol	--	--	--	--	1.6E-02	1.6E-02	1.6E-02	1.9E-02	1.9E-02	1.9E-02	8.0E-02	--	--	--	--	--	5.8E-04	--	--	--	0.19		
75092	Methylene chloride(Dichloromethane)	--	--	--	--	2.2E-04	2.2E-04	2.2E-04	2.6E-04	2.6E-04	2.6E-04	1.1E-03	--	--	--	--	--	--	--	--	--	2.5E-03		
N/A	Polycyclic Organic Matter (POM)	1.2E-04	1.4E-04	1.4E-04	2.5E-04	7.4E-04	7.4E-04	7.4E-04	8.9E-04	8.9E-04	8.9E-04	3.7E-03	9.9E-04	1.2E-03	2.6E-03	1.7E-03	--	--	--	--	1.4E-06	0.02		
91203	Naphthalene	6.9E-05	8.4E-05	8.4E-05	1.8E-04	5.1E-04	5.1E-04	5.1E-04	6.1E-04	6.1E-04	6.1E-04	2.6E-03	--	--	--	--	8.5E-04	6.0E-05	--	--	9.9E-06	7.3E-03		
75569	Propylene Oxide	1.5E-03	1.9E-03	1.9E-03	1.5E-03	--	--	--	--	--	--	1.8E-05	--	--	--	--	--	2.2E-04	--	--	--	7.1E-03		
100425	Styrene	--	--	--	--	6.3E-05	6.3E-05	6.3E-05	7.5E-05	7.5E-05	7.5E-05	3.1E-04	--	--	--	--	--	--	--	--	--	7.3E-04		
79345	1,1,2,2-Tetrachloroethane	--	--	--	--	1.3E-04	1.3E-04	1.3E-04	1.6E-04	1.6E-04	1.6E-04	6.6E-04	--	--	--	--	--	--	--	--	--	1.5E-03		
108883	Toluene	6.9E-03	8.4E-03	8.4E-03	6.9E-03	2.9E-03	2.9E-03	2.9E-03	3.5E-03	3.5E-03	3.5E-03	1.5E-02	2.4E-03	2.9E-03	6.3E-03	4.1E-03	--	--	0	5.5E-02	5.5E-05	0.14		
79005	1,1,2-Trichloroethane	--	--	--	--	8.0E-05	8.0E-05	8.0E-05	9.7E-05	9.7E-05	9.7E-05	4.0E-04	--	--	--	--	2.1E-03	1.2E-03	--	--	--	4.2E-03		
75014	Vinyl chloride	--	--	--	--	3.8E-05	3.8E-05	3.8E-05	4.5E-05	4.5E-05	4.5E-05	1.9E-04	--	--	--	--	--	--	--	--	--	4.4E-04		
106423	Xylenes (isomers and mixtures)	3.4E-03	4.2E-03	4.2E-03	3.4E-03	1.0E-03	1.0E-03	1.0E-03	1.2E-03	1.2E-03	1.2E-03	5.1E-03	1.7E-03	2.1E-03	4.4E-03	2.8E-03	--	--	--	--	1.8E-03	0.04		
N/A	Arsenic Compounds	--	--	--	3.5E-05	--	--	--	--	--	--	--	--	--	--	--	1.4E-03	5.8E-04	--	--	--	3.3E-06	2.1E-03	
N/A	Beryllium Compounds	--	--	--	1.0E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-07	1.2E-06	
N/A	Cadmium Compounds	--	--	--	1.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-05	3.3E-05	
N/A	Chromium Compounds	--	--	--	3.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3E-05	5.8E-05	
N/A	Cobalt Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-06	1.4E-06	
N/A	Lead Compounds	--	--	--	4.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.1E-06	5.3E-05	
N/A	Manganese Compounds	--	--	--	2.5E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.2E-06	2.6E-03	
N/A	Mercury Compounds	--	--	--	3.9E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-06	8.1E-06	
N/A	Nickel Compounds	--	--	--	1.5E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.4E-05	4.9E-05	
N/A	Selenium Compounds	--	--	--	8.1E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.9E-07	8.1E-05	
Total		0.05	0.07	0.07	0.06	0.2	0.2	0.2	0.2	0.2	0.2	0.9	0.02	0.03	0.06	0.04	0.02	0.06	0.00	0.3	0.03	2.8		

Table D-2c. HAPs Summary - Estimated Actual Emissions
Hilcorp Alaska, LLC - Anna Platform

CAS No.	Hazardous Air Pollutant	Estimated Actual Emissions (tpy)																				Insig. Units		Total
		Significant Units																				Tanks	Heaters/ Boiler	
		EU ID 2	EU ID 3	EU ID 4	EU ID 5	EU ID 7	EU ID 8	EU ID 9	EU ID 10	EU ID 11	EU ID 12	EU ID 13	EU ID 14	EU ID 15	EU ID 16	EU ID 17	EU ID 18	EU ID 19	EU ID 27					
75070	Acetaldehyde	1.7E-03	2.4E-03	2.5E-03	4.5E-04	9.5E-04	3.9E-04	8.6E-04	4.5E-04	4.7E-04	5.2E-04	5.9E-06	1.1E-06	4.9E-06	1.8E-04	8.8E-05	1.3E-06	2.4E-04	--	--	--	0.01		
107028	Acrolein	2.7E-04	3.9E-04	4.1E-04	7.2E-05	9.0E-04	3.6E-04	8.1E-04	4.2E-04	4.4E-04	4.9E-04	5.5E-06	1.4E-07	5.9E-07	2.2E-05	1.1E-05	1.5E-07	5.5E-05	--	--	--	4.7E-03		
71432	Benzene	5.1E-04	7.3E-04	7.6E-04	1.3E-04	5.4E-04	2.2E-04	4.9E-04	2.5E-04	2.7E-04	2.9E-04	3.3E-06	1.4E-06	5.9E-06	2.2E-04	1.1E-04	1.6E-06	8.8E-04	0	6.2E-02	3.4E-05	0.07		
106990	1,3 Butadiene	1.8E-05	2.6E-05	2.7E-05	4.8E-06	2.3E-04	9.2E-05	2.0E-04	1.1E-04	1.1E-04	1.2E-04	1.4E-06	5.8E-08	2.5E-07	9.3E-06	4.5E-06	6.5E-08	--	--	--	9.5E-04			
56235	Carbon tetrachloride	--	--	--	--	6.0E-06	2.5E-06	5.5E-06	2.8E-06	3.0E-06	3.3E-06	3.7E-08	--	--	--	--	--	--	--	--	--	2.3E-05		
108907	Chlorobenzene	--	--	--	--	4.4E-06	1.8E-06	4.0E-06	2.1E-06	2.2E-06	2.4E-06	2.7E-08	--	--	--	--	--	--	--	--	--	1.7E-05		
67663	Chloroform	--	--	--	--	4.7E-06	1.9E-06	4.2E-06	2.2E-06	2.3E-06	2.5E-06	2.9E-08	--	--	--	--	--	--	--	--	--	1.8E-05		
98828	Cumene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.4E-04	--	4.4E-04		
25321226	Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-05	2.0E-05		
75343	1,1-Dichloroethane	--	--	--	--	3.8E-06	1.6E-06	3.5E-06	1.8E-06	1.9E-06	2.1E-06	2.4E-08	--	--	--	--	--	--	--	--	--	1.5E-05		
107062	1,2-Dichloroethane	--	--	--	--	3.8E-06	1.6E-06	3.5E-06	1.8E-06	1.9E-06	2.1E-06	2.4E-08	--	--	--	--	--	--	--	--	--	1.5E-05		
78875	1,2-Dichloropropane	--	--	--	--	3.8E-06	1.6E-06	3.5E-06	1.8E-06	1.9E-06	2.1E-06	2.4E-08	--	--	--	--	--	--	--	--	--	1.5E-05		
542756	1,3-Dichloropropene	--	--	--	--	4.3E-06	1.8E-06	3.9E-06	2.0E-06	2.1E-06	2.3E-06	2.7E-08	--	--	--	--	--	--	--	--	--	1.7E-05		
100414	Ethyl benzene	1.4E-03	1.9E-03	2.0E-03	3.6E-04	8.4E-06	3.4E-06	7.6E-06	4.0E-06	4.2E-06	4.6E-06	5.2E-08	--	--	--	--	7.9E-03	--	2.7E-03	--	0.02			
1006934	Ethylene dibromide (Dibromoethane)	--	--	--	--	7.3E-06	3.0E-06	6.6E-06	3.4E-06	3.6E-06	3.9E-06	4.5E-08	--	--	--	--	--	--	--	--	--	2.8E-05		
5000	Formaldehyde	3.0E-02	4.3E-02	4.5E-02	7.9E-03	7.0E-03	2.8E-03	6.3E-03	3.3E-03	3.5E-03	3.8E-03	4.3E-05	1.7E-06	7.5E-06	2.8E-04	1.4E-04	2.0E-06	6.4E-03	--	--	1.2E-03	0.16		
110543	n-Hexane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6E-04	0	1.6E-01	2.9E-02	0.19			
67561	Methanol	--	--	--	--	1.0E-03	4.2E-04	9.4E-04	4.9E-04	5.2E-04	5.7E-04	6.4E-06	--	--	--	--	--	--	--	--	--	4.0E-03		
75092	Methylene chloride(Dichloromethane)	--	--	--	--	1.4E-05	5.7E-06	1.3E-05	6.6E-06	6.9E-06	7.6E-06	8.7E-08	--	--	--	--	--	--	--	--	--	5.4E-05		
N/A	Polycyclic Organic Matter (POM)	9.3E-05	1.3E-04	1.4E-04	2.5E-05	4.8E-05	2.0E-05	4.3E-05	2.3E-05	2.4E-05	2.6E-05	3.0E-07	2.5E-07	1.1E-06	4.0E-05	1.9E-05	2.8E-07	1.7E-05	--	--	1.4E-06	6.5E-04		
91203	Naphthalene	5.5E-05	7.9E-05	8.2E-05	1.5E-05	3.3E-05	1.3E-05	3.0E-05	1.6E-05	1.6E-05	1.8E-05	2.0E-07	--	--	--	--	--	6.1E-05	--	--	9.9E-06	4.3E-04		
75569	Propylene Oxide	1.2E-03	1.8E-03	1.8E-03	3.2E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.2E-03		
100425	Styrene	--	--	--	--	4.1E-06	1.6E-06	3.7E-06	1.9E-06	2.0E-06	2.2E-06	2.5E-08	--	--	--	--	--	--	--	--	--	1.6E-05		
79345	1,1,2,2-Tetrachloroethane	--	--	--	--	8.6E-06	3.5E-06	7.8E-06	4.1E-06	4.3E-06	4.7E-06	5.3E-08	--	--	--	--	--	--	--	--	--	3.3E-05		
108883	Toluene	5.5E-03	7.9E-03	8.2E-03	1.5E-03	1.9E-04	7.7E-05	1.7E-04	9.0E-05	9.4E-05	1.0E-04	1.2E-06	6.0E-07	2.6E-06	9.8E-05	4.7E-05	6.8E-07	3.2E-04	0	5.5E-02	5.5E-05	0.08		
79005	1,1,2-Trichloroethane	--	--	--	--	5.2E-06	2.1E-06	4.7E-06	2.5E-06	2.6E-06	2.8E-06	3.2E-08	--	--	--	--	--	--	--	--	--	2.0E-05		
75014	Vinyl chloride	--	--	--	--	2.4E-06	1.0E-06	2.2E-06	1.2E-06	1.2E-06	1.3E-06	1.5E-08	--	--	--	--	--	--	--	--	--	9.4E-06		
106423	Xylenes (isomers and mixtures)	2.7E-03	3.9E-03	4.1E-03	7.2E-04	6.6E-05	2.7E-05	6.0E-05	3.1E-05	3.3E-05	3.6E-05	4.1E-07	4.2E-07	1.8E-06	6.8E-05	3.3E-05	4.8E-07	1.6E-04	--	1.8E-03	--	0.01		
N/A	Arsenic Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3E-06	3.3E-06	
N/A	Beryllium Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E-07	2.0E-07	
N/A	Cadmium Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8E-05	1.8E-05	
N/A	Chromium Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3E-05	2.3E-05	
N/A	Cobalt Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-06	1.4E-06	
N/A	Lead Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.1E-06	8.1E-06	
N/A	Manganese Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.2E-06	6.2E-06	
N/A	Mercury Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2E-06	4.2E-06	
N/A	Nickel Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.4E-05	3.4E-05	
N/A	Selenium Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.9E-07	3.9E-07	
Total		0.04	0.06	0.07	0.01	0.01	4.5E-03	0.01	5.2E-03	5.5E-03	6.0E-03	6.8E-05	5.7E-06	2.5E-05	9.3E-04	4.4E-04	6.5E-06	0.02	0.00	0.3	0.03	0.6		

**Table D-3a. Significant Emissions Unit Inventory
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Make/Model	Fuel Type	Rating/Size	Limited Potential Operation ¹	Unlimited Potential Operation ²	Estimated Actual Operation ³
Significant Units							
2	Solar AC #3	Solar Saturn MK-I Turbine	FG	750 kW	8,760 hr/yr	8,760 hr/yr	7,016.0 hr/yr
3	Solar Bing #1	Solar Saturn T-1400 Turbine	FG	1,400 hp	8,760 hr/yr	8,760 hr/yr	8,183.1 hr/yr
4	Solar Bing #2	Solar Saturn T-1400 Turbine	FG	1,400 hp	8,760 hr/yr	8,760 hr/yr	8,556.8 hr/yr
5	Solar AC #2	Solar Saturn MK-II Turbine	FG	800 kW	8,260 hr/yr ⁴	8,260 hr/yr	1,735.7 hr/yr
			Diesel		500 hr/yr ⁴	500 hr/yr	2.0 hr/yr
7	Kobe Pump Drive #1	Waukesha Triplex 1197G	FG	150 hp	8,760 hr/yr	8,760 hr/yr	567.7 hr/yr
8	Kobe Pump Drive #2	Waukesha Triplex 1197G	FG	150 hp	8,760 hr/yr	8,760 hr/yr	231.1 hr/yr
9	Kobe Pump Drive #3	Waukesha Triplex 1197G	FG	150 hp	8,760 hr/yr	8,760 hr/yr	513.3 hr/yr
10	Kobe Pump Drive #7	Waukesha Triplex 1905G	FG	180 hp	8,760 hr/yr	8,760 hr/yr	223.1 hr/yr
11	Kobe Pump Drive #8	Waukesha Triplex 1905G	FG	180 hp	8,760 hr/yr	8,760 hr/yr	233.9 hr/yr
12	Kobe Pump Drive #9	Waukesha Triplex 1905G	FG	180 hp	8,760 hr/yr	8,760 hr/yr	256.6 hr/yr
13	Emergency Generator Drive	Caterpillar G-399 Engine	FG	750 hp	500 hr/yr	8,760 hr/yr	0.7 hr/yr
14	Fire Water Pump Drive	Waukesha 1197D Engine	Diesel	192 hp	8,760 hr/yr	8,760 hr/yr	2.2 hr/yr
15	Backup Generator Drive	Caterpillar DE-3208 Engine	Diesel	235 hp	8,760 hr/yr	8,760 hr/yr	7.7 hr/yr
16	SeaTrax West Crane	John Deere 6135 Engine	Diesel	500 hp	8,760 hr/yr	8,760 hr/yr	136.5 hr/yr
17	Sea King East Crane	Caterpillar D-3406B Engine	Diesel	325 hp	8,760 hr/yr	8,760 hr/yr	100.9 hr/yr
18	Air Compressor Drive	Detroit Diesel D6-71 Engine	Diesel	165 hp	8,760 hr/yr	8,760 hr/yr	2.9 hr/yr
19	Safety/Operating Flares	Flare (HP/LP) and Pilot	FG	40 MMscf/yr ⁵	8,760 hr/yr	8,760 hr/yr	11.0 MMscf/yr
27	TEG Dehydration Unit	Glycol Regenerator	N/A	9 MMscf/day	8,760 hr/yr	8,760 hr/yr	8,760.0 hr/yr

**Table D-3b. Insignificant Emissions Unit Inventory
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel	Rating/Size	Unlimited Potential Operation
28	Heater	Modine PDP	FG	0.4 MMBtu/hr	8,760 hr/yr
29	Heater	Modine PDP	FG	0.4 MMBtu/hr	8,760 hr/yr
30	Heater	Modine PDP	FG	0.4 MMBtu/hr	8,760 hr/yr
N/A	Boiler	Riello Boiler	FG	4.0 MMBtu/hr	8,760 hr/yr
N/A	Tank 2	Diesel Storage Tank	N/A	2,500 bbls	8,760 hr/yr
N/A	Tank 3	Crude Oil Storage Tank	N/A	2,300 bbls	8,760 hr/yr
N/A	Tank 4	Crude Oil Storage Tank	N/A	2,500 bbls	8,760 hr/yr
N/A	Tank 5	Crude Oil Storage Tank	N/A	2,500 bbls	8,760 hr/yr
N/A	Tank 7	Produced Water	N/A	600 bbls	8,760 hr/yr
N/A	Tank 8	Produced Water	N/A	600 bbls	8,760 hr/yr
N/A	Upper Center Bay Day Tank	Diesel Storage Tank	N/A	1,000 gallons	8,760 hr/yr
N/A	West Crane Tank	Diesel Storage Tank	N/A	350 gallons	8,760 hr/yr
N/A	East Crane Tank	Diesel Storage Tank	N/A	300 gallons	8,760 hr/yr
N/A	Fire Water Pump Tank	Diesel Storage Tank	N/A	250 gallons	8,760 hr/yr
N/A	Emergency Generator Tank	Diesel Storage Tank	N/A	115 gallons	8,760 hr/yr
N/A	Center Bay Lube Oil Tank	Lube Oil Storage Tank	N/A	2,917 gallons	8,760 hr/yr
N/A	Center Bay Demulsifier Tank	Demulsifier Storage Tank	N/A	330 gallons	8,760 hr/yr
N/A	Center Bay Paraffin Dispersant Tank	Paraffin Dispersant Storage Tank	N/A	330 gallons	8,760 hr/yr
N/A	Center Bay Test Chemical Tank	Test Chemical Storage Tank	N/A	200 gallons	8,760 hr/yr

Notes:

¹ Limited operation is based on full-time operation, or permit operating limits, where applicable.

² Maximum annual operation for all units is based on full-time annual operation and is used to calculate unlimited potential emissions.

³ Estimated actual operation is based on the average of calendar years 2022 and 2023 actual hours of operation or MMscf/yr.

⁴ EU ID 5 typically operates on fuel gas and only uses diesel as an emergency fuel. The worst-case of full-time annual operation on fuel gas or 500 hour operation on diesel with the remainder on fuel gas is used to calculate limited and unlimited potential emissions.

⁵ The daily flare rating is 28 MMscf/day and includes pilot, purge, and maximum flaring; 40 MMscf/yr is used for calculations as a conservative annual estimate.

**Table D-4a. Significant Emissions Unit Inventory - NO_x Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	0.32 lb/MMBtu	AP-42 Table 3.1-1	16.9 tpy	16.9 tpy	13.6 tpy
3	Solar Bing #1	FG	1,400 hp	150 ppmv	NSPS Subpart GG	35.9 tpy	35.9 tpy	33.5 tpy
4	Solar Bing #2	FG	1,400 hp	150 ppmv	NSPS Subpart GG	35.9 tpy	35.9 tpy	35.0 tpy
5	Solar AC #2	FG	800 kW	150 ppmv	NSPS Subpart GG	31.2 tpy ¹	31.2 tpy ¹	6.2 tpy
		Diesel		0.88 lb/MMBtu	AP-42 Table 3.1-1			
7	Kobe Pump Drive #1	FG	150 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	11.9 tpy	11.9 tpy	0.8 tpy
8	Kobe Pump Drive #2	FG	150 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	11.9 tpy	11.9 tpy	0.3 tpy
9	Kobe Pump Drive #3	FG	150 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	11.9 tpy	11.9 tpy	0.7 tpy
10	Kobe Pump Drive #7	FG	180 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	14.3 tpy	14.3 tpy	0.4 tpy
11	Kobe Pump Drive #8	FG	180 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	14.3 tpy	14.3 tpy	0.4 tpy
12	Kobe Pump Drive #9	FG	180 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	14.3 tpy	14.3 tpy	0.4 tpy
13	Emergency Generator Drive	FG	750 hp	2.27 lb/MMBtu	AP-42 Table 3.2-3	3.4 tpy	59.7 tpy	4.8E-03 tpy
14	Fire Water Pump Drive	Diesel	192 hp	0.031 lb/hp-hr	AP-42 Table 3.3-1	26.1 tpy	26.1 tpy	6.5E-03 tpy
15	Backup Generator Drive	Diesel	235 hp	0.031 lb/hp-hr	AP-42 Table 3.3-1	31.9 tpy	31.9 tpy	2.8E-02 tpy
16	SeaTrax West Crane	Diesel	500 hp	1,623.7 g/hr	Vendor Data	15.7 tpy	15.7 tpy	0.2 tpy
17	Sea King East Crane	Diesel	325 hp	0.031 lb/hp-hr	AP-42 Table 3.3-1	44.1 tpy	44.1 tpy	0.5 tpy
18	Air Compressor Drive	Diesel	165 hp	0.031 lb/hp-hr	AP-42 Table 3.3-1	22.4 tpy	22.4 tpy	7.4E-03 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	0.068 lb/MMBtu	AP-42 Table 13.5-1	1.9 tpy	1.9 tpy	0.5 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
Total						344.1 tpy	400.4 tpy	92.6 tpy

**Table D-4b. Insignificant Emissions Unit Inventory - NO_x Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	100 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
29	Heater	FG	0.4 MMBtu/hr	100 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
30	Heater	FG	0.4 MMBtu/hr	100 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	100 lb/MMscf	AP-42 Table 1.4-1	1.3 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	N/A	0 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 7	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Tank 8	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	N/A	0 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	N/A	0 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	N/A	0 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	N/A	0 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	N/A	0 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						1.6 tpy

Notes:

¹ Potential emissions for dual fuel fired EU ID 5 is based on full time operation on natural gas. Diesel fuel is only used as an emergency fuel.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

**Table D-5a. Significant Emissions Unit Inventory - CO Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	0.082 lb/MMBtu	AP-42 Table 3.1-1	4.3 tpy	4.3 tpy	3.5 tpy
3	Solar Bing #1	FG	1,400 hp	3.12 lb/hr	2010 Source Test	13.7 tpy	13.7 tpy	12.8 tpy
4	Solar Bing #2	FG	1,400 hp	3.12 lb/hr	2010 Source Test	13.7 tpy	13.7 tpy	13.3 tpy
5	Solar AC #2	FG	800 kW	2.39 lb/hr	2010 Source Test	10.5 tpy ¹	10.5 tpy ¹	2.1 tpy
		Diesel		0.0033 lb/MMBtu	AP-42, Table 3.1-1			
7	Kobe Pump Drive #1	FG	150 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	19.6 tpy	19.6 tpy	1.3 tpy
8	Kobe Pump Drive #2	FG	150 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	19.6 tpy	19.6 tpy	0.5 tpy
9	Kobe Pump Drive #3	FG	150 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	19.6 tpy	19.6 tpy	1.1 tpy
10	Kobe Pump Drive #7	FG	180 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	23.5 tpy	23.5 tpy	0.6 tpy
11	Kobe Pump Drive #8	FG	180 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	23.5 tpy	23.5 tpy	0.6 tpy
12	Kobe Pump Drive #9	FG	180 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	23.5 tpy	23.5 tpy	0.7 tpy
13	Emergency Generator Drive	FG	750 hp	3.72 lb/MMBtu	AP-42 Table 3.2-3	5.6 tpy	97.8 tpy	7.8E-03 tpy
14	Fire Water Pump Drive	Diesel	192 hp	0.00668 lb/hp-hr	AP-42 Table 3.3-1	5.6 tpy	5.6 tpy	1.4E-03 tpy
15	Backup Generator Drive	Diesel	235 hp	0.00668 lb/hp-hr	AP-42 Table 3.3-1	6.9 tpy	6.9 tpy	6.0E-03 tpy
16	SeaTrax West Crane	Diesel	500 hp	275.9 g/hr	Vendor Data	2.7 tpy	2.7 tpy	4.2E-02 tpy
17	Sea King East Crane	Diesel	325 hp	0.00668 lb/hp-hr	AP-42 Table 3.3-1	9.5 tpy	9.5 tpy	0.1 tpy
18	Air Compressor Drive	Diesel	165 hp	0.00668 lb/hp-hr	AP-42 Table 3.3-1	4.8 tpy	4.8 tpy	1.6E-03 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	0.31 lb/MMBtu	AP-42 Table 13.5-2	8.7 tpy	8.7 tpy	2.4 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
Total						214.9 tpy	307.1 tpy	39.1 tpy

**Table D-5b. Insignificant Emissions Unit Inventory - CO Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	84 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
29	Heater	FG	0.4 MMBtu/hr	84 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
30	Heater	FG	0.4 MMBtu/hr	84 lb/MMscf	AP-42 Table 1.4-1	0.1 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	84 lb/MMscf	AP-42 Table 1.4-1	1.1 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	N/A	0 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 7	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Tank 8	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	N/A	0 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	N/A	0 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	N/A	0 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	N/A	0 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	N/A	0 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						1.4 tpy

Notes:

¹ Potential emissions for dual fuel fired EU ID 5 is based on full time operation on natural gas. Diesel fuel is only used as an emergency fuel.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

**Table D-6a. Significant Emissions Unit Inventory - PM₁₀ Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.3 tpy	0.3 tpy	0.3 tpy
3	Solar Bing #1	FG	1,400 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.4 tpy	0.4 tpy	0.4 tpy
4	Solar Bing #2	FG	1,400 hp	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.4 tpy	0.4 tpy	0.4 tpy
5	Solar AC #2	FG	800 kW	0.0066 lb/MMBtu	AP-42 Table 3.1-2a	0.4 tpy ¹	0.4 tpy ¹	7.4E-02 tpy
		Diesel		0.012 lb/MMBtu	AP-42 Table 3.1-2a			
7	Kobe Pump Drive #1	FG	150 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	6.6E-03 tpy
8	Kobe Pump Drive #2	FG	150 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	2.7E-03 tpy
9	Kobe Pump Drive #3	FG	150 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	6.0E-03 tpy
10	Kobe Pump Drive #7	FG	180 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	3.1E-03 tpy
11	Kobe Pump Drive #8	FG	180 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	3.3E-03 tpy
12	Kobe Pump Drive #9	FG	180 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.1 tpy	0.1 tpy	3.6E-03 tpy
13	Emergency Generator Drive	FG	750 hp	0.01941 lb/MMBtu	AP-42 Table 3.2-3	0.03 tpy	0.5 tpy	4.1E-05 tpy
14	Fire Water Pump Drive	Diesel	192 hp	0.0022 lb/hp-hr	AP-42 Table 3.3-1	1.9 tpy	1.9 tpy	4.6E-04 tpy
15	Backup Generator Drive	Diesel	235 hp	0.0022 lb/hp-hr	AP-42 Table 3.3-1	2.3 tpy	2.3 tpy	2.0E-03 tpy
16	SeaTrax West Crane	Diesel	500 hp	32.3 g/hr	Vendor Data	0.3 tpy	0.3 tpy	4.9E-03 tpy
17	Sea King East Crane	Diesel	325 hp	0.0022 lb/hp-hr	AP-42 Table 3.3-1	3.1 tpy	3.1 tpy	3.6E-02 tpy
18	Air Compressor Drive	Diesel	165 hp	0.0022 lb/hp-hr	AP-42 Table 3.3-1	1.6 tpy	1.6 tpy	5.3E-04 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	0.0265 lb/MMBtu	AP-42 Table 13.5-1	0.7 tpy	0.7 tpy	0.2 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	N/A	0 tpy	0 tpy	0 tpy
Total						12.2 tpy	12.7 tpy	1.4 tpy

**Table D-6b. Insignificant Emissions Unit Inventory - PM₁₀ Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	7.6 lb/MMscf	AP-42 Table 1.4-2	9.5E-03 tpy
29	Heater	FG	0.4 MMBtu/hr	7.6 lb/MMscf	AP-42 Table 1.4-2	9.5E-03 tpy
30	Heater	FG	0.4 MMBtu/hr	7.6 lb/MMscf	AP-42 Table 1.4-2	9.5E-03 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	7.6 lb/MMscf	AP-42 Table 1.4-2	9.5E-02 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	N/A	0 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 7	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Tank 8	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	N/A	0 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	N/A	0 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	N/A	0 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	N/A	0 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	N/A	0 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						0.1 tpy

Notes:

¹ Potential emissions for dual fuel fired EU ID 5 is based on 500 hours on diesel fuel and 8,260 hours on natural gas. Diesel fuel is only used as an emergency fuel.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

**Table D-7a. Significant Emissions Unit Inventory - VOC Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.1 tpy		8.9E-02 tpy
3	Solar Bing #1	FG	1,400 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.1 tpy	0.1 tpy	0.1 tpy
4	Solar Bing #2	FG	1,400 hp	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.1 tpy	0.1 tpy	0.1 tpy
5	Solar AC #2	FG	800 kW	0.0021 lb/MMBtu	AP-42 Table 3.1-2a	0.1 tpy ¹	0.1 tpy ¹	2.4E-02 tpy
		Diesel		0.00041 lb/MMBtu	AP-42 Table 3.1-2a			
7	Kobe Pump Drive #1	FG	150 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	1.0E-02 tpy
8	Kobe Pump Drive #2	FG	150 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	4.1E-03 tpy
9	Kobe Pump Drive #3	FG	150 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	9.1E-03 tpy
10	Kobe Pump Drive #7	FG	180 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	4.8E-03 tpy
11	Kobe Pump Drive #8	FG	180 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	5.0E-03 tpy
12	Kobe Pump Drive #9	FG	180 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.2 tpy	0.2 tpy	5.5E-03 tpy
13	Emergency Generator Drive	FG	750 hp	0.0296 lb/MMBtu	AP-42 Table 3.2-3	0.04 tpy	0.8 tpy	6.2E-05 tpy
14	Fire Water Pump Drive	Diesel	192 hp	0.00247 lb/hp-hr	AP-42 Table 3.3-1	2.1 tpy	2.1 tpy	5.2E-04 tpy
15	Backup Generator Drive	Diesel	235 hp	0.00247 lb/hp-hr	AP-42 Table 3.3-1	2.5 tpy	2.5 tpy	2.2E-03 tpy
16	SeaTrax West Crane	Diesel	500 hp	48.3 g/hr	Vendor Data	0.5 tpy	0.5 tpy	7.3E-03 tpy
17	Sea King East Crane	Diesel	325 hp	0.00247 lb/hp-hr	AP-42 Table 3.3-1	3.5 tpy	3.5 tpy	4.0E-02 tpy
18	Air Compressor Drive	Diesel	165 hp	0.00247 lb/hp-hr	AP-42 Table 3.3-1	1.8 tpy	1.8 tpy	5.9E-04 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	0.66 lb/MMBtu	AP-42 Table 13.5-1	18.5 tpy	18.5 tpy	5.1 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	N/A ²	0 tpy	0 tpy	0 tpy
Total						30.4 tpy	31.2 tpy	5.5 tpy

**Table D-7b. Insignificant Emissions Unit Inventory - VOC Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	5.5 lb/MMscf	AP-42 Table 1.4-2	6.9E-03 tpy
29	Heater	FG	0.4 MMBtu/hr	5.5 lb/MMscf	AP-42 Table 1.4-2	6.9E-03 tpy
30	Heater	FG	0.4 MMBtu/hr	5.5 lb/MMscf	AP-42 Table 1.4-2	6.9E-03 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	5.5 lb/MMscf	AP-42 Table 1.4-2	6.9E-02 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	AP-42 Section 7.1 ³	4.2E-03 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	AP-42 Section 7.1 ³	1.3 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	AP-42 Section 7.1 ³	1.3 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	AP-42 Section 7.1 ³	1.3 tpy
N/A	Tank 7	N/A	600 bbls	N/A	AP-42 Section 7.1 ³	0.3 tpy
N/A	Tank 8	N/A	600 bbls	N/A	AP-42 Section 7.1 ³	0.3 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	AP-42 Section 7.1 ³	1.1E-04 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	AP-42 Section 7.1 ³	1.1E-04 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	AP-42 Section 7.1 ³	1.1E-04 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	AP-42 Section 7.1 ³	1.1E-04 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	AP-42 Section 7.1 ³	1.1E-04 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						4.5 tpy

Notes:

¹ Potential emissions for dual fuel fired EU ID 5 is based on full time operation on natural gas. Diesel fuel is only used as an emergency fuel.

² The dehydration unit (EU ID 27) operates as a closed system with the exception of a rupture disk that allows venting to the atmosphere if over pressure occurs.

³ See Table D-7c for emissions calculations.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

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

Emission Calculations ¹					
Parameter	Tank 2	Diesel Tanks	Produced Water	Crude Storage Tank	Equation
Standing Loss (L_s) Calculations					
Vapor Space Expansion Factor, K _E	0.039	0.039	0.039	0.039	Eq. 1-12
Effective Height, H _E (ft)	14.14	3.14	8.64	14.14	Eq. 1-15
Vapor Space Outage, H _{VO} (ft)	7.07	1.57	4.32	7.07	Eq. 1-16
Average Daily Temp, T _{AA} (°R)	496.22	496.22	496.22	496.22	Eq. 1-30
Liquid Bulk Temp, T _B (°R)	498.00	498.00	498.00	498.00	Eq. 1-31
Average Daily Liquid Temp, T _{LA} (°R)	500.27	500.27	500.27	500.27	Eq. 1-28
Vapor Pressure, P _{VA} (psia)	0.0033	0.0033	1.3973	1.3973	Eq. 1-25
Vented Vapor Sat Factor, K _S	1.00	1.00	0.76	0.66	Eq. 1-21
Average Vapor Temp, T _V (°R)	502.11	502.11	502.11	502.11	Eq. 1-33
Vapor Density, W _V (lb/ft ³)	8.0E-05	8.0E-05	1.3E-02	1.3E-02	Eq. 1-22
Effective Diameter, D _E (ft)	35.8	7.7	22.5	35.8	Eq. 1-14
Vapor Space Volume, V _V (ft ³)	7,125.1	72.3	1,710.6	7,125.1	Eq. 1-3
Standing Loss, L _S (lb/yr)	8.2	0.1	240.4	867.4	Eq. 1-2
Working Loss (L_w) Calculations					
Annual Sum Liquid, ΣH _O (ft/yr)	3.48	34.87	102.07	167.08	Eq. 1-37
Maximum Liquid Height, H _{LX} (ft)	14.14	3.14	8.64	14.14	Eq. 1-36
Minimum Liquid Height, H _{LN} (ft)	0	0	0	0	Eq. 1-36
Number of Turnovers, N	0	11	12	12	Eq. 1-36
Factors, K _N , K _B	1	1	1	1	Eq. 1-35
Factor, K _P	1.00	1.00	0.75	0.75	Eq. 1-35
Net Working Loss, V _O (ft ³ /yr)	3,509	1,604	40,421	168,420	Eq. 1-39
Working Loss, L _W (lb/yr)	0.28	0.13	393.10	1,637.90	Eq. 1-35
Total VOCs (lb):	8.5	0.2	633.4	2,505.3	Eq. 1-1
Total VOCs (tpy):	4.2E-03	1.1E-04	0.3	1.3	
HAP Emissions (tpy)					
Benzene	1.1E-04	2.7E-06	4.5E-03	1.8E-02	
Cumene	2.1E-06	5.3E-08	3.2E-05	1.3E-04	
Ethylbenzene	1.4E-05	3.4E-07	1.9E-04	7.5E-04	
Hexane	2.4E-04	6.0E-06	1.2E-02	4.7E-02	
Toluene	8.7E-05	2.2E-06	4.0E-03	1.6E-02	
Xylenes (isomers and mixture)	5.5E-06	1.4E-07	1.3E-04	5.0E-04	
Total HAPs (tpy):	4.5E-04	1.1E-05	0.02	0.08	

Notes:

¹ Reference: AP-42 Section 7.1.

² Tank 2's throughput assumed to be one quarter tank volume per year. Other tanks' throughput assumed to be one tank volume per month.

³ EPA SPECIATE online profiles.

Tank Information				
Parameter	Tank 2	Diesel Tanks	Produced Water	Crude Storage Tank
Tank Contents	Diesel	Diesel	Crude	Crude
Tank Capacity (gallons)	105,000	1,000	25,200	105,000
Orientation	Horizontal	Horizontal	Horizontal	Horizontal
Diameter (ft)	18	4.0	11	18
Length (ft) / Height (ft)	56	11.5	36	56
Color	Gray (medium)	Gray (medium)	Gray (medium)	Gray (medium)
Roof	NA	NA	NA	NA
Diesel Throughput (gal/yr) ²	26,250	12,000	302,400	1,260,000
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}	43.6 °F	503.3 °R
Average Daily Min Temp, T _{AN}	29.5 °F	489.2 °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 Percent ³		
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

**Table D-8a. Significant Emissions Unit Inventory - SO₂ Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	25 ppmv H ₂ S ¹	Mass Balance	0.2 tpy	0.2 tpy	0.1 tpy
3	Solar Bing #1	FG	1,400 hp	25 ppmv H ₂ S ¹	Mass Balance	0.2 tpy	0.2 tpy	0.2 tpy
4	Solar Bing #2	FG	1,400 hp	25 ppmv H ₂ S ¹	Mass Balance	0.2 tpy	0.2 tpy	0.2 tpy
5	Solar AC #2	FG	800 kW	25 ppmv H ₂ S ¹	Mass Balance	1.8 tpy ²	1.8 tpy ²	4.0E-02 tpy
		Diesel		0.5 wt% S	Mass Balance			
7	Kobe Pump Drive #1	FG	150 hp	25 ppmv H ₂ S ¹	Mass Balance	1.6E-02 tpy	1.6E-02 tpy	1.0E-03 tpy
8	Kobe Pump Drive #2	FG	150 hp	25 ppmv H ₂ S ¹	Mass Balance	1.6E-02 tpy	1.6E-02 tpy	4.2E-04 tpy
9	Kobe Pump Drive #3	FG	150 hp	25 ppmv H ₂ S ¹	Mass Balance	1.6E-02 tpy	1.6E-02 tpy	9.3E-04 tpy
10	Kobe Pump Drive #7	FG	180 hp	25 ppmv H ₂ S ¹	Mass Balance	1.9E-02 tpy	1.9E-02 tpy	4.8E-04 tpy
11	Kobe Pump Drive #8	FG	180 hp	25 ppmv H ₂ S ¹	Mass Balance	1.9E-02 tpy	1.9E-02 tpy	5.1E-04 tpy
12	Kobe Pump Drive #9	FG	180 hp	25 ppmv H ₂ S ¹	Mass Balance	1.9E-02 tpy	1.9E-02 tpy	5.6E-04 tpy
13	Emergency Generator Drive	FG	750 hp	25 ppmv H ₂ S ¹	Mass Balance	4.5E-03 tpy	7.9E-02 tpy	6.3E-06 tpy
14	Fire Water Pump Drive	Diesel	192 hp	0.5 wt% S	Mass Balance	3.0 tpy	3.0 tpy	7.6E-04 tpy
15	Backup Generator Drive	Diesel	235 hp	0.5 wt% S	Mass Balance	3.7 tpy	3.7 tpy	3.2E-03 tpy
16	SeaTrax West Crane	Diesel	500 hp	0.5 wt% S	Mass Balance	7.8 tpy	7.8 tpy	0.1 tpy
17	Sea King East Crane	Diesel	325 hp	0.5 wt% S	Mass Balance	5.1 tpy	5.1 tpy	5.9E-02 tpy
18	Air Compressor Drive	Diesel	165 hp	0.5 wt% S	Mass Balance	2.6 tpy	2.6 tpy	8.6E-04 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	25 ppmv H ₂ S ¹	Mass Balance	8.4E-02 tpy	8.4E-02 tpy	2.3E-02 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	Mass Balance	0 tpy	0 tpy	0 tpy
Total						24.8 tpy	24.8 tpy	0.8 tpy

**Table D-8b. Insignificant Emissions Unit Inventory - SO₂ Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	25 ppmv H ₂ S ¹	Mass Balance	5.3E-03 tpy
29	Heater	FG	0.4 MMBtu/hr	25 ppmv H ₂ S ¹	Mass Balance	5.3E-03 tpy
30	Heater	FG	0.4 MMBtu/hr	25 ppmv H ₂ S ¹	Mass Balance	5.3E-03 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	25 ppmv H ₂ S ¹	Mass Balance	5.3E-02 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	N/A	0 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 7	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Tank 8	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	N/A	0 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	N/A	0 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	N/A	0 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	N/A	0 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	N/A	0 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						0.1 tpy

Notes:

¹ Emission factors for fuel gas-fired units are based on a conservative estimate of fuel gas H₂S content for Anna Platform based on historical records.

² Potential emissions for dual fuel fired EU ID 5 is based 500 hours on diesel fuel and 8,260 hours on natural gas. Diesel fuel is only used as an emergency fuel.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

**Table D-9a. Significant Emissions Unit Inventory - CO₂e Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emission Unit Name	Fuel Type	Rating/Size	Emission Factor	Reference	Limited Potential Emissions	Unlimited Potential Emissions	Estimated Actual Emissions
2	Solar AC #3	FG	750 kW	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	6,202 tpy	6,202 tpy	4,967 tpy
3	Solar Bing #1	FG	1,400 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	7,601 tpy	7,601 tpy	7,100 tpy
4	Solar Bing #2	FG	1,400 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	7,601 tpy	7,601 tpy	7,424 tpy
5	Solar AC #2	FG	800 kW	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	6,764 tpy ¹	6,764 tpy ¹	1,313 tpy
		Diesel		74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2			
7	Kobe Pump Drive #1	FG	150 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	615 tpy	615 tpy	40 tpy
8	Kobe Pump Drive #2	FG	150 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	615 tpy	615 tpy	16 tpy
9	Kobe Pump Drive #3	FG	150 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	615 tpy	615 tpy	36 tpy
10	Kobe Pump Drive #7	FG	180 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	739 tpy	739 tpy	19 tpy
11	Kobe Pump Drive #8	FG	180 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	739 tpy	739 tpy	20 tpy
12	Kobe Pump Drive #9	FG	180 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	739 tpy	739 tpy	22 tpy
13	Emergency Generator Drive	FG	750 hp	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	176 tpy	3,077 tpy	0.2 tpy
14	Fire Water Pump Drive	Diesel	192 hp	74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2	963 tpy	963 tpy	0.2 tpy
15	Backup Generator Drive	Diesel	235 hp	74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2	1,179 tpy	1,179 tpy	1 tpy
16	SeaTrax West Crane	Diesel	500 hp	74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2	2,508 tpy	2,508 tpy	39 tpy
17	Sea King East Crane	Diesel	325 hp	74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2	1,630 tpy	1,630 tpy	19 tpy
18	Air Compressor Drive	Diesel	165 hp	74.21 kg/MMBtu	40 CFR 98 Tables C-1 & 2	828 tpy	828 tpy	0.3 tpy
19	Safety/Operating Flares	FG	40 MMscf/yr	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	3,276 tpy	3,276 tpy	902 tpy
27	TEG Dehydration Unit	N/A	9 MMscf/day	N/A	N/A ²	0 tpy	0 tpy	0 tpy
Total						42,789 tpy	45,691 tpy	21,917 tpy

**Table D-9b. Insignificant Emissions Unit Inventory - CO₂e Emissions
Hilcorp Alaska, LLC - Anna Platform**

EU ID	Emissions Unit Name	Fuel	Rating/Size	Emission Factor	Reference	Unlimited Potential Emissions
28	Heater	FG	0.4 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	205 tpy
29	Heater	FG	0.4 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	205 tpy
30	Heater	FG	0.4 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	205 tpy
N/A	Boiler	FG	4.0 MMBtu/hr	53.11 kg/MMBtu	40 CFR 98 Tables C-1 & 2	2,052 tpy
N/A	Tank 2	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 3	N/A	2,300 bbls	N/A	N/A	0 tpy
N/A	Tank 4	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 5	N/A	2,500 bbls	N/A	N/A	0 tpy
N/A	Tank 7	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Tank 8	N/A	600 bbls	N/A	N/A	0 tpy
N/A	Upper Center Bay Day Tank	N/A	1,000 gallons	N/A	N/A	0 tpy
N/A	West Crane Tank	N/A	350 gallons	N/A	N/A	0 tpy
N/A	East Crane Tank	N/A	300 gallons	N/A	N/A	0 tpy
N/A	Fire Water Pump Tank	N/A	250 gallons	N/A	N/A	0 tpy
N/A	Emergency Generator Tank	N/A	115 gallons	N/A	N/A	0 tpy
N/A	Center Bay Lube Oil Tank	N/A	2,917 gallons	N/A	N/A	0 tpy
N/A	Center Bay Demulsifier Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Paraffin Dispersant Tank	N/A	330 gallons	N/A	N/A	0 tpy
N/A	Center Bay Test Chemical Tank	N/A	200 gallons	N/A	N/A	0 tpy
Total						2,667 tpy

Notes:

¹ Potential emissions for dual fuel fired EU ID 5 is based 500 hours on diesel fuel and 8,260 hours on natural gas. Diesel fuel is only used as an emergency fuel.

² The dehydration unit (EU ID 27) operates as a closed system with the exception of a rupture disk that allows venting to the atmosphere if over pressure occurs.

Conversions:

EU ID 2 Heat Rate:	16,122 Btu/kW-hr	Diesel Engine Heat Rate:	7,000 Btu/hp-hr
EU ID 3 & 4 Heat Rate:	10,585 Btu/hp-hr	Fuel Gas Heat Content (HHV):	1,399 Btu/scf 2024 Gas Analysis
EU ID 5 Heat Rate:	16,120 Btu/kW-hr	Diesel Fuel Heat Content:	137,000 Btu/gal
Gas Engine Heat Rate:	8,000 Btu/hp-hr	Diesel Fuel Density:	7 lb/gal

**Table D-10. Estimated Potential HAP Emissions - Fuel Gas-Fired Turbines
Hilcorp Alaska, LLC - Anna Platform**

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Limited/Unlimited Potential Emissions ²				Estimated Actual Emissions ²			
			EU 2	EU 3	EU 4	EU 5	EU 2	EU 3	EU 4	EU 5
75070	Acetaldehyde	4.00E-05 lb/MMBtu	2.1E-03 tpy	2.6E-03 tpy	2.6E-03 tpy	2.1E-03 tpy	1.7E-03 tpy	2.4E-03 tpy	2.5E-03 tpy	4.5E-04 tpy
107028	Acrolein	6.40E-06 lb/MMBtu	3.4E-04 tpy	4.2E-04 tpy	4.2E-04 tpy	3.4E-04 tpy	2.7E-04 tpy	3.9E-04 tpy	4.1E-04 tpy	7.2E-05 tpy
71432	Benzene	1.20E-05 lb/MMBtu	6.4E-04 tpy	7.8E-04 tpy	7.8E-04 tpy	6.4E-04 tpy	5.1E-04 tpy	7.3E-04 tpy	7.6E-04 tpy	1.3E-04 tpy
106990	1,3 Butadiene	4.30E-07 lb/MMBtu	2.3E-05 tpy	2.8E-05 tpy	2.8E-05 tpy	2.3E-05 tpy	1.8E-05 tpy	2.6E-05 tpy	2.7E-05 tpy	4.8E-06 tpy
100414	Ethyl benzene	3.20E-05 lb/MMBtu	1.7E-03 tpy	2.1E-03 tpy	2.1E-03 tpy	1.7E-03 tpy	1.4E-03 tpy	1.9E-03 tpy	2.0E-03 tpy	3.6E-04 tpy
5000	Formaldehyde	7.10E-04 lb/MMBtu	3.8E-02 tpy	4.6E-02 tpy	4.6E-02 tpy	3.8E-02 tpy	3.0E-02 tpy	4.3E-02 tpy	4.5E-02 tpy	7.9E-03 tpy
N/A	Polycyclic Organic Matter	2.20E-06 lb/MMBtu	1.2E-04 tpy	1.4E-04 tpy	1.4E-04 tpy	1.2E-04 tpy	9.3E-05 tpy	1.3E-04 tpy	1.4E-04 tpy	2.5E-05 tpy
91203	Naphthalene	1.30E-06 lb/MMBtu	6.9E-05 tpy	8.4E-05 tpy	8.4E-05 tpy	6.9E-05 tpy	5.5E-05 tpy	7.9E-05 tpy	8.2E-05 tpy	1.5E-05 tpy
75569	Propylene Oxide	2.90E-05 lb/MMBtu	1.5E-03 tpy	1.9E-03 tpy	1.9E-03 tpy	1.5E-03 tpy	1.2E-03 tpy	1.8E-03 tpy	1.8E-03 tpy	3.2E-04 tpy
108883	Toluene	1.30E-04 lb/MMBtu	6.9E-03 tpy	8.4E-03 tpy	8.4E-03 tpy	6.9E-03 tpy	5.5E-03 tpy	7.9E-03 tpy	8.2E-03 tpy	1.5E-03 tpy
106423	Xylenes (isomers and mixtures)	6.40E-05 lb/MMBtu	3.4E-03 tpy	4.2E-03 tpy	4.2E-03 tpy	3.4E-03 tpy	2.7E-03 tpy	3.9E-03 tpy	4.1E-03 tpy	7.2E-04 tpy
Total			0.05 tpy	0.07 tpy	0.07 tpy	0.05 tpy	0.04 tpy	0.06 tpy	0.07 tpy	0.01 tpy

Notes:

¹ Reference: AP-42, Table 3.1-3.

² Total heat consumption based on operation as noted below:

EU ID	Rating/Size	Limited/Unlimited Potential Operation		Estimated Actual Operation	
2	750 kW	105,922 MMBtu/yr @	8,760 hr/yr	84,833 MMBtu/yr @	7,016.0 hr/yr
3	1,400 hp	129,814 MMBtu/yr @	8,760 hr/yr	121,265 MMBtu/yr @	8,183.1 hr/yr
4	1,400 hp	129,814 MMBtu/yr @	8,760 hr/yr	126,803 MMBtu/yr @	8,556.8 hr/yr
5	800 kW	106,521 MMBtu/yr @	8,260 hr/yr	22,384 MMBtu/yr @	1,735.7 hr/yr

Conversions:

EU ID 2 Heat Rate	16,122 Btu/kW-hr
EU ID 3 & 4 Heat Rate	10,585 Btu/hp-hr
EU ID 5 Heat Rate	16,120 Btu/kW-hr

**Table D-11. Estimated Potential HAP Emissions - Diesel-Fired Turbines
Hilcorp Alaska, LLC - Anna Platform**

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Limited/Unlimited Potential Emissions ²	Estimated Actual Emissions ²
			EU 5	EU 5
71432	Benzene	5.50E-05 lb/MMBtu	1.8E-04 tpy	0 tpy
106990	1,3 Butadiene	1.60E-05 lb/MMBtu	5.2E-05 tpy	0 tpy
5000	Formaldehyde	2.80E-04 lb/MMBtu	9.0E-04 tpy	0 tpy
N/A	Polycyclic Organic Matter	4.00E-05 lb/MMBtu	1.3E-04 tpy	0 tpy
91203	Naphthalene	3.50E-05 lb/MMBtu	1.1E-04 tpy	0 tpy
N/A	Arsenic Compounds	1.10E-05 lb/MMBtu	3.5E-05 tpy	0 tpy
N/A	Beryllium Compounds	3.10E-07 lb/MMBtu	1.0E-06 tpy	0 tpy
N/A	Cadmium Compounds	4.80E-06 lb/MMBtu	1.5E-05 tpy	0 tpy
N/A	Chromium Compounds	1.10E-05 lb/MMBtu	3.5E-05 tpy	0 tpy
N/A	Lead Compounds	1.40E-05 lb/MMBtu	4.5E-05 tpy	0 tpy
N/A	Manganese Compounds	7.90E-04 lb/MMBtu	2.5E-03 tpy	0 tpy
N/A	Mercury Compounds	1.20E-06 lb/MMBtu	3.9E-06 tpy	0 tpy
N/A	Nickel Compounds	4.60E-06 lb/MMBtu	1.5E-05 tpy	0 tpy
N/A	Selenium Compounds	2.50E-05 lb/MMBtu	8.1E-05 tpy	0 tpy
Total			4.2E-03 tpy	0 tpy

Notes:

¹ Reference: AP-42, Tables 3.1-4 and 3.1-5.

² Total heat consumption based on operation as noted below:

<u>EU ID</u>	<u>Rating/Size</u>	<u>Limited/Unlimited Potential Operation</u>	
5	800 kW	6,448 MMBtu/yr @	500 hr/yr
		<u>Estimated Actual Operation</u>	
		0 MMBtu/yr @	0 hr/yr

Conversions:

EU ID 5 Heat Rate	16,120 Btu/kW-hr
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Table D-12. Estimated Potential HAP Emissions - 4-Stroke Rich Burn Fuel Gas-Fired Engines
Hilcorp Alaska, LLC - Anna Platform

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Limited Potential Emissions ²	Unlimited Potential Emissions ²	Limited/Unlimited Potential Emissions ²							Estimated Actual Emissions ²							
			EU 13	EU 13	EU 7	EU 8	EU 9	EU 10	EU 11	EU 12	EU 7	EU 8	EU 9	EU 10	EU 11	EU 12	EU 13		
75070	Acetaldehyde	2.79E-03 lb/MMBtu	4.2E-03 tpy	7.3E-02 tpy	1.5E-02 tpy	1.5E-02 tpy	1.5E-02 tpy	1.8E-02 tpy	9.5E-04 tpy	3.9E-04 tpy	8.6E-04 tpy	4.5E-04 tpy	4.7E-04 tpy	5.2E-04 tpy	5.9E-06 tpy				
107028	Acrolein	2.63E-03 lb/MMBtu	3.9E-03 tpy	6.9E-02 tpy	1.4E-02 tpy	1.4E-02 tpy	1.4E-02 tpy	1.7E-02 tpy	9.0E-04 tpy	3.6E-04 tpy	8.1E-04 tpy	4.2E-04 tpy	4.4E-04 tpy	4.9E-04 tpy	5.5E-06 tpy				
71432	Benzene	1.58E-03 lb/MMBtu	2.4E-03 tpy	4.2E-02 tpy	8.3E-03 tpy	8.3E-03 tpy	8.3E-03 tpy	1.0E-02 tpy	5.4E-04 tpy	2.2E-04 tpy	4.9E-04 tpy	2.5E-04 tpy	2.7E-04 tpy	2.9E-04 tpy	3.3E-06 tpy				
106990	1,3-Butadiene	6.63E-04 lb/MMBtu	9.9E-04 tpy	1.7E-02 tpy	3.5E-03 tpy	3.5E-03 tpy	3.5E-03 tpy	4.2E-03 tpy	2.3E-04 tpy	9.2E-05 tpy	2.0E-04 tpy	1.1E-04 tpy	1.1E-04 tpy	1.2E-04 tpy	1.4E-06 tpy				
56235	Carbon tetrachloride	1.77E-05 lb/MMBtu	2.7E-05 tpy	4.7E-04 tpy	9.3E-05 tpy	9.3E-05 tpy	9.3E-05 tpy	1.1E-04 tpy	6.0E-06 tpy	2.5E-06 tpy	5.5E-06 tpy	2.8E-06 tpy	3.0E-06 tpy	3.3E-06 tpy	3.7E-08 tpy				
108907	Chlorobenzene	1.29E-05 lb/MMBtu	1.9E-05 tpy	3.4E-04 tpy	6.8E-05 tpy	6.8E-05 tpy	6.8E-05 tpy	8.1E-05 tpy	4.4E-06 tpy	1.8E-06 tpy	4.0E-06 tpy	2.1E-06 tpy	2.2E-06 tpy	2.4E-06 tpy	2.7E-08 tpy				
67663	Chloroform	1.37E-05 lb/MMBtu	2.1E-05 tpy	3.6E-04 tpy	7.2E-05 tpy	7.2E-05 tpy	7.2E-05 tpy	8.6E-05 tpy	4.7E-06 tpy	1.9E-06 tpy	4.2E-06 tpy	2.2E-06 tpy	2.3E-06 tpy	2.5E-06 tpy	2.9E-08 tpy				
75343	1,1-Dichloroethane	1.13E-05 lb/MMBtu	1.7E-05 tpy	3.0E-04 tpy	5.9E-05 tpy	5.9E-05 tpy	5.9E-05 tpy	7.1E-05 tpy	3.8E-06 tpy	1.6E-06 tpy	3.5E-06 tpy	1.8E-06 tpy	1.9E-06 tpy	2.1E-06 tpy	2.4E-08 tpy				
107062	1,2-Dichloroethane	1.13E-05 lb/MMBtu	1.7E-05 tpy	3.0E-04 tpy	5.9E-05 tpy	5.9E-05 tpy	5.9E-05 tpy	7.1E-05 tpy	3.8E-06 tpy	1.6E-06 tpy	3.5E-06 tpy	1.8E-06 tpy	1.9E-06 tpy	2.1E-06 tpy	2.4E-08 tpy				
78875	1,2-Dichloropropane	1.13E-05 lb/MMBtu	1.7E-05 tpy	3.0E-04 tpy	5.9E-05 tpy	5.9E-05 tpy	5.9E-05 tpy	7.1E-05 tpy	3.8E-06 tpy	1.6E-06 tpy	3.5E-06 tpy	1.8E-06 tpy	1.9E-06 tpy	2.1E-06 tpy	2.4E-08 tpy				
542756	1,3-Dichloropropene	1.27E-05 lb/MMBtu	1.9E-05 tpy	3.3E-04 tpy	6.7E-05 tpy	6.7E-05 tpy	6.7E-05 tpy	8.0E-05 tpy	4.3E-06 tpy	1.8E-06 tpy	3.9E-06 tpy	2.0E-06 tpy	2.1E-06 tpy	2.3E-06 tpy	2.7E-08 tpy				
100414	Ethyl benzene	2.48E-05 lb/MMBtu	3.7E-05 tpy	6.5E-04 tpy	1.3E-04 tpy	1.3E-04 tpy	1.3E-04 tpy	1.6E-04 tpy	8.4E-06 tpy	3.4E-06 tpy	7.6E-06 tpy	4.0E-06 tpy	4.2E-06 tpy	4.6E-06 tpy	5.2E-08 tpy				
1006934	Ethylene dibromide (Dibromoethane)	2.13E-05 lb/MMBtu	3.2E-05 tpy	5.6E-04 tpy	1.1E-04 tpy	1.1E-04 tpy	1.1E-04 tpy	1.3E-04 tpy	7.3E-06 tpy	3.0E-06 tpy	6.6E-06 tpy	3.4E-06 tpy	3.6E-06 tpy	3.9E-06 tpy	4.5E-08 tpy				
5000	Formaldehyde	2.05E-02 lb/MMBtu	3.1E-02 tpy	5.4E-01 tpy	1.1E-01 tpy	1.1E-01 tpy	1.1E-01 tpy	1.3E-01 tpy	7.0E-03 tpy	2.8E-03 tpy	6.3E-03 tpy	3.3E-03 tpy	3.5E-03 tpy	3.8E-03 tpy	4.3E-05 tpy				
67561	Methanol	3.06E-03 lb/MMBtu	4.6E-03 tpy	8.0E-02 tpy	1.6E-02 tpy	1.6E-02 tpy	1.6E-02 tpy	1.9E-02 tpy	1.0E-03 tpy	4.2E-04 tpy	9.4E-04 tpy	4.9E-04 tpy	5.2E-04 tpy	5.7E-04 tpy	6.4E-06 tpy				
75092	Methylene chloride (Dichloromethane)	4.12E-05 lb/MMBtu	6.2E-05 tpy	1.1E-03 tpy	2.2E-04 tpy	2.2E-04 tpy	2.2E-04 tpy	2.6E-04 tpy	1.4E-05 tpy	5.7E-06 tpy	1.3E-05 tpy	6.6E-06 tpy	6.9E-06 tpy	7.6E-06 tpy	8.7E-08 tpy				
N/A	Polycyclic Organic Matter	1.41E-04 lb/MMBtu	2.1E-04 tpy	3.7E-03 tpy	7.4E-04 tpy	7.4E-04 tpy	7.4E-04 tpy	8.9E-04 tpy	4.8E-05 tpy	2.0E-05 tpy	4.3E-05 tpy	2.3E-05 tpy	2.4E-05 tpy	2.6E-05 tpy	3.0E-07 tpy				
91203	Naphthalene	9.71E-05 lb/MMBtu	1.5E-04 tpy	2.6E-03 tpy	5.1E-04 tpy	5.1E-04 tpy	5.1E-04 tpy	6.1E-04 tpy	3.3E-05 tpy	1.3E-05 tpy	3.0E-05 tpy	1.6E-05 tpy	1.6E-05 tpy	1.8E-05 tpy	2.0E-07 tpy				
100425	Styrene	1.19E-05 lb/MMBtu	1.8E-05 tpy	3.1E-04 tpy	6.3E-05 tpy	6.3E-05 tpy	6.3E-05 tpy	7.5E-05 tpy	4.1E-06 tpy	1.6E-06 tpy	3.7E-06 tpy	1.9E-06 tpy	2.0E-06 tpy	2.2E-06 tpy	2.5E-08 tpy				
79345	1,1,2,2-Tetrachloroethane	2.53E-05 lb/MMBtu	3.8E-05 tpy	6.6E-04 tpy	1.3E-04 tpy	1.3E-04 tpy	1.3E-04 tpy	1.6E-04 tpy	8.6E-06 tpy	3.5E-06 tpy	7.8E-06 tpy	4.1E-06 tpy	4.3E-06 tpy	4.7E-06 tpy	5.3E-08 tpy				
108883	Toluene	5.58E-04 lb/MMBtu	8.4E-04 tpy	1.5E-02 tpy	2.9E-03 tpy	2.9E-03 tpy	2.9E-03 tpy	3.5E-03 tpy	1.9E-04 tpy	7.7E-05 tpy	1.7E-04 tpy	9.0E-05 tpy	9.4E-05 tpy	1.0E-04 tpy	1.2E-06 tpy				
79005	1,1,2-Trichloroethane	1.53E-05 lb/MMBtu	2.3E-05 tpy	4.0E-04 tpy	8.0E-05 tpy	8.0E-05 tpy	8.0E-05 tpy	9.7E-05 tpy	5.2E-06 tpy	2.1E-06 tpy	4.7E-06 tpy	2.5E-06 tpy	2.6E-06 tpy	2.8E-06 tpy	3.2E-08 tpy				
75014	Vinyl chloride	7.18E-06 lb/MMBtu	1.1E-05 tpy	1.9E-04 tpy	3.8E-05 tpy	3.8E-05 tpy	3.8E-05 tpy	4.5E-05 tpy	2.4E-06 tpy	1.0E-06 tpy	2.2E-06 tpy	1.2E-06 tpy	1.2E-06 tpy	1.3E-06 tpy	1.5E-08 tpy				
1330207	Xylenes (isomers and mixture)	1.95E-04 lb/MMBtu	2.9E-04 tpy	5.1E-03 tpy	1.0E-03 tpy	1.0E-03 tpy	1.0E-03 tpy	1.2E-03 tpy	6.6E-05 tpy	2.7E-05 tpy	6.0E-05 tpy	3.1E-05 tpy	3.3E-05 tpy	3.6E-05 tpy	4.1E-07 tpy				
	Total		0.05 tpy	0.9 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.2 tpy	0.01 tpy	4.5E-03 tpy	0.01 tpy	5.2E-03 tpy	5.5E-03 tpy	6.0E-03 tpy	6.8E-05 tpy

Notes:

¹ Reference: AP-42, Table 3.2-3.

² Total heat consumption based on operation as noted below:

EU ID	Rating/Size	Limited Potential Operation		Unlimited Potential Operation		Estimated Actual Operation	
7	150 hp	10,512 MMBtu/yr @	8,760 hr/yr	10,512 MMBtu/yr @	8,760 hr/yr	681 MMBtu/yr @	567.7 hr/yr
8	150 hp	10,512 MMBtu/yr @	8,760 hr/yr	10,512 MMBtu/yr @	8,760 hr/yr	277 MMBtu/yr @	231.1 hr/yr
9	150 hp	10,512 MMBtu/yr @	8,760 hr/yr	10,512 MMBtu/yr @	8,760 hr/yr	616 MMBtu/yr @	513.3 hr/yr
10	180 hp	12,614 MMBtu/yr @	8,760 hr/yr	12,614 MMBtu/yr @	8,760 hr/yr	321 MMBtu/yr @	223.1 hr/yr
11	180 hp	12,614 MMBtu/yr @	8,760 hr/yr	12,614 MMBtu/yr @	8,760 hr/yr	337 MMBtu/yr @	233.9 hr/yr
12	180 hp	12,614 MMBtu/yr @	8,760 hr/yr	12,614 MMBtu/yr @	8,760 hr/yr	369 MMBtu/yr @	256.6 hr/yr
13	750 hp	3,000 MMBtu/yr @	500 hr/yr	52,560 MMBtu/yr @	8,760 hr/yr	4 MMBtu/yr @	0.7 hr/yr

Conversions:

Gas Engine Heat Rate 8,000 Btu/hp-hr

**Table D-13. Estimated Potential HAP Emissions - Diesel-Fired Engines ≤ 600 hp
Hilcorp Alaska, LLC - Anna Platform**

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Limited/Unlimited Potential Emissions ²					Estimated Actual Emissions ²				
			EU 14	EU 15	EU 16	EU 17	EU 18	EU 14	EU 15	EU 16	EU 17	EU 18
75070	Acetaldehyde	7.67E-04 lb/MMBtu	4.5E-03 tpy	5.5E-03 tpy	1.2E-02 tpy	7.6E-03 tpy	3.9E-03 tpy	1.1E-06 tpy	4.9E-06 tpy	1.8E-04 tpy	8.8E-05 tpy	1.3E-06 tpy
107028	Acrolein	9.25E-05 lb/MMBtu	5.4E-04 tpy	6.7E-04 tpy	1.4E-03 tpy	9.2E-04 tpy	4.7E-04 tpy	1.4E-07 tpy	5.9E-07 tpy	2.2E-05 tpy	1.1E-05 tpy	1.5E-07 tpy
71432	Benzene	9.33E-04 lb/MMBtu	5.5E-03 tpy	6.7E-03 tpy	1.4E-02 tpy	9.3E-03 tpy	4.7E-03 tpy	1.4E-06 tpy	5.9E-06 tpy	2.2E-04 tpy	1.1E-04 tpy	1.6E-06 tpy
106990	1,3 Butadiene	3.91E-05 lb/MMBtu	2.3E-04 tpy	2.8E-04 tpy	6.0E-04 tpy	3.9E-04 tpy	2.0E-04 tpy	5.8E-08 tpy	2.5E-07 tpy	9.3E-06 tpy	4.5E-06 tpy	6.5E-08 tpy
5000	Formaldehyde	1.18E-03 lb/MMBtu	6.9E-03 tpy	8.5E-03 tpy	1.8E-02 tpy	1.2E-02 tpy	6.0E-03 tpy	1.7E-06 tpy	7.5E-06 tpy	2.8E-04 tpy	1.4E-04 tpy	2.0E-06 tpy
N/A	Polycyclic Organic Matter	1.68E-04 lb/MMBtu	9.9E-04 tpy	1.2E-03 tpy	2.6E-03 tpy	1.7E-03 tpy	8.5E-04 tpy	2.5E-07 tpy	1.1E-06 tpy	4.0E-05 tpy	1.9E-05 tpy	2.8E-07 tpy
108883	Toluene	4.09E-04 lb/MMBtu	2.4E-03 tpy	2.9E-03 tpy	6.3E-03 tpy	4.1E-03 tpy	2.1E-03 tpy	6.0E-07 tpy	2.6E-06 tpy	9.8E-05 tpy	4.7E-05 tpy	6.8E-07 tpy
106423	Xylenes (isomers and mixtures)	2.85E-04 lb/MMBtu	1.7E-03 tpy	2.1E-03 tpy	4.4E-03 tpy	2.8E-03 tpy	1.4E-03 tpy	4.2E-07 tpy	1.8E-06 tpy	6.8E-05 tpy	3.3E-05 tpy	4.8E-07 tpy
Total			0.02 tpy	0.03 tpy	0.06 tpy	0.04 tpy	0.02 tpy	5.7E-06 tpy	2.5E-05 tpy	9.3E-04 tpy	4.4E-04 tpy	6.5E-06 tpy

Notes:

¹ Reference: AP-42, Table 3.3-2.

² Total heat consumption based on operation as noted below:

EU ID	Rating/Size	Limited/Unlimited Potential Operation		Estimated Actual Operation	
14	192 hp	11,773 MMBtu/yr @	8,760 hr/yr	3 MMBtu/yr @	2.2 hr/yr
15	235 hp	14,410 MMBtu/yr @	8,760 hr/yr	13 MMBtu/yr @	7.7 hr/yr
16	500 hp	30,660 MMBtu/yr @	8,760 hr/yr	478 MMBtu/yr @	136.5 hr/yr
17	325 hp	19,929 MMBtu/yr @	8,760 hr/yr	230 MMBtu/yr @	100.9 hr/yr
18	165 hp	10,118 MMBtu/yr @	8,760 hr/yr	3 MMBtu/yr @	2.9 hr/yr

Conversions:

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

**Table D-14. Estimated Potential HAP Emissions - Flares
Hilcorp Alaska, LLC - Anna Platform**

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Limited/Unlimited Potential Emissions ²	Estimated Actual Emissions ²
			EU ID 19	EU ID 19
75070	Acetaldehyde	0.043 lb/MMscf	8.6E-04 tpy	2.4E-04 tpy
107028	Acrolein	0.010 lb/MMscf	2.0E-04 tpy	5.5E-05 tpy
71432	Benzene	0.159 lb/MMscf	3.2E-03 tpy	8.8E-04 tpy
100414	Ethyl benzene	1.444 lb/MMscf	2.9E-02 tpy	7.9E-03 tpy
5000	Formaldehyde	1.169 lb/MMscf	2.3E-02 tpy	6.4E-03 tpy
110543	n-Hexane	0.029 lb/MMscf	5.8E-04 tpy	1.6E-04 tpy
N/A	Polycyclic Organic Matter	0.003 lb/MMscf	6.0E-05 tpy	1.7E-05 tpy
91203	Naphthalene	0.011 lb/MMscf	2.2E-04 tpy	6.1E-05 tpy
108883	Toluene	0.058 lb/MMscf	1.2E-03 tpy	3.2E-04 tpy
1330207	Xylenes	0.029 lb/MMscf	5.8E-04 tpy	1.6E-04 tpy
Total			0.06 tpy	0.02 tpy

Notes:

¹ Reference: VCAPCD.

² Total heat consumption based on operation as noted below:

<u>EU ID</u>	<u>Rating/Size</u>	<u>Limited/Unlimited Potential Operation</u>	<u>Estimated Actual Operation</u>
19	40 MMscf/yr	40 MMscf/yr	11 MMscf/yr

**Table D-15. HAP Potential Emissions - Fuel Gas-Fired Boilers/Heaters
Hilcorp Alaska, LLC - Anna Platform**

CAS No.	Hazardous Air Pollutant	Emission Factor ¹	Potential Emissions	
			EU ID 28/29/30, Each	Boiler
71432	Benzene	2.1E-03 lb/MMscf	2.6E-06 tpy	2.6E-05 tpy
25321226	Dichlorobenzene	1.2E-03 lb/MMscf	1.5E-06 tpy	1.5E-05 tpy
5000	Formaldehyde	7.5E-02 lb/MMscf	9.4E-05 tpy	9.4E-04 tpy
110543	n-Hexane	1.8E+00 lb/MMscf	2.3E-03 tpy	2.3E-02 tpy
N/A	Polycyclic Organic Matter	8.82E-05 lb/MMscf	1.1E-07 tpy	1.1E-06 tpy
91203	Naphthalene	6.1E-04 lb/MMscf	7.6E-07 tpy	7.6E-06 tpy
108883	Toluene	3.4E-03 lb/MMscf	4.3E-06 tpy	4.3E-05 tpy
N/A	Arsenic Compounds	2.0E-04 lb/MMscf	2.5E-07 tpy	2.5E-06 tpy
N/A	Beryllium Compounds	1.2E-05 lb/MMscf	1.5E-08 tpy	1.5E-07 tpy
N/A	Cadmium Compounds	1.1E-03 lb/MMscf	1.4E-06 tpy	1.4E-05 tpy
N/A	Chromium Compounds	1.4E-03 lb/MMscf	1.8E-06 tpy	1.8E-05 tpy
N/A	Cobalt Compounds	8.4E-05 lb/MMscf	1.1E-07 tpy	1.1E-06 tpy
N/A	Lead Compounds	5.0E-04 lb/MMscf	6.3E-07 tpy	6.3E-06 tpy
N/A	Manganese Compounds	3.8E-04 lb/MMscf	4.8E-07 tpy	4.8E-06 tpy
N/A	Mercury Compounds	2.6E-04 lb/MMscf	3.3E-07 tpy	3.3E-06 tpy
N/A	Nickel Compounds	2.1E-03 lb/MMscf	2.6E-06 tpy	2.6E-05 tpy
N/A	Selenium Compounds	2.4E-05 lb/MMscf	3.0E-08 tpy	3.0E-07 tpy
Total			2.4E-03 tpy	0.02 tpy

Notes:

¹ Reference: Tables 1.4.2, 1.4-3, and 1.4-4.

² Total heat consumption based on operation as noted below:

EU ID	Rating/Size	Limited/Unlimited/Estimated Actual Potential Operation
28	0.4 MMBtu/hr	3,504 MMBtu/yr @ 8,760 hr/yr
29	0.4 MMBtu/hr	3,504 MMBtu/yr @ 8,760 hr/yr
30	0.4 MMBtu/hr	3,504 MMBtu/yr @ 8,760 hr/yr
Boiler	4.0 MMBtu/hr	35,040 MMBtu/yr @ 8,760 hr/yr

Conversions:

Fuel Gas Heat Content: 1,399 Btu/scf



Section E

Regulatory Requirements

Form E1:	Stationary Source-Wide Applicable Requirements
Form E3:	Title V Condition Change Request
Form E4:	Permit Shield Request
Form E5:	Alternative Monitoring Procedures Form

FORM E1
Stationary Source-Wide Applicable Requirements

Permit Number: AQ0062TVP04

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
AQ0062TVP04 – Conditions 17.1	18 AAC 50.050(a), 50.055(a)(1)	Insignificant Emission Units – VE Standard	Do not cause or allow visible emissions to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.	Yes.	Monitor, record, and report in accordance with Condition 17.4.
AQ0062TVP04 – Conditions 17.2	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.	Monitor, record, and report in accordance with Condition 17.4.
AQ0062TVP04 – Conditions 17.3	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.	Monitor, record, and report in accordance with Condition 17.4.
AQ0062TVP04 – Condition 18	40 CFR 60.7(a) 60.15(d), Subpart A	NSPS Subpart A Notification	Furnish to the Department and EPA written or electronic notification of dates of construction or reconstruction; dates of initial startup; physical or operational changes that may increase the emission rate of any applicable air pollutant; and proposed replacement of components.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 49	40 CFR 61, Subparts A & M, Appendix A	Subpart A (General Provisions) and Subpart M (Asbestos)	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.
AQ0062TVP04 – Condition 50	40 CFR 82, Subpart F	Subpart F – Recycling and Emissions Reduction	Comply with the standards for recycling and emission reduction of refrigerants set forth 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
AQ0062TVP04 – Condition 51	40 CFR 82.174(b)-(d), Subpart G	Subpart G – Significant New Alternatives	Comply with the applicable prohibitions set out in 40 CFR 82.174.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 52	40 CFR 82.270(b)-(f), Subpart H	Subpart H – Halon Emissions Reduction	Comply with the applicable prohibitions set out in 40 CFR 82.270.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 53	40 CFR 63.1(b), 63.5(b)(4), 63.6(c)(1), 63.9(b), 63.10(b)(3), Subpart A	NESHAP Applicability Determinations	Determine rule applicability and designation of affected sources under NESHAPs for Source Categories (40 CFR 63) in accordance with the procedures described in 40 CFR 63.1(b) and 63.10(b)(3).	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 54	18 AAC 50.345(a) & (e)	Standard Terms and Conditions	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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 55	18 AAC 50.345 (a) & (f)	Standard Terms and Conditions	The permit may be modified, reopened, revoked and reissued, or terminated for cause.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 56	18 AAC 50.345 (a) & (g)	Standard Terms and Conditions	The permit does not convey any property rights of any sort, nor any exclusive privilege.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 57	18 AAC 50.326(j)(1), 50.400, 50.403	Administration Fees	Pay to the Department all assessed permit administration fees.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 58	18 AAC 50.410, 50.420	Assessable Emissions	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.	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
AQ0062TVP04 – Condition 59	18 AAC 50.410, 50.420	Assessable Emission Estimates	Submit an estimate of the stationary source's assessable emissions. 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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 61	18 AAC 50.045(a)	Dilution	Do not dilute emissions with air to comply with this permit.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 62	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.	Record and report in accordance with Conditions 62.1 and 62.2.
AQ0062TVP04 – Condition 63	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 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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 64	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 would unreasonably interfere with the enjoyment of life or property.	Yes.	Monitor, report, and record in accordance with Condition 64.1.
AQ0062TVP04 – Condition 65	18 AAC 50.235(a)	Technology-Based Emission Standard	If an unavoidable emergency, malfunction, or non-routine repair causes emissions in excess of a technology-based emission standard, take all reasonable steps to minimize levels of emissions that exceed the standard, and report.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 66	18 AAC 50.065	Open Burning Requirements	Do not conduct open burning at the stationary 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
AQ0062TVP04 – Condition 67	18 AAC 50.220(a)	Requested Source Tests	Conduct source testing as requested by the Department to determine compliance with applicable permit requirements.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 68	18 AAC 50.220(b)	Operating Conditions	Conduct source testing at a point or points that characterize the actual discharge into the ambient air; and at the maximum rated burning or operating capacity of the emission unit.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 69	18 AAC 50.220(c)(1)(A)-(F) & (c)(2)	Reference Test Methods	Use the referenced test methods when conducting source testing for compliance with the permit.	Yes.	Comply with the test methods listed in Conditions 69.1 through 69.6.
AQ0062TVP04 – Condition 70	18 AAC 50.220(c)(3)	Excess Air Requirements	Standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emissions unit type, corrected to standard conditions.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 71	18 AAC 50.345(a)	Test Exemption	It is not required to comply with Conditions 73, 74, and 75 when the exhaust is observed for visible emissions by a Method 9 Plan.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 72	18 AAC 50.345(a) & (l)	Test Deadline Extension	An extension may be requested to a source test deadline established by the Department.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 73	18 AAC 50.345(a) & (m)	Test Plans	Before conducting any source tests, submit a plan to the Department.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 74	18 AAC 50.345(a) & (n)	Test Notification	At least 10 days before conducting a source test, give the Department written notice of the date and the time the source test will begin.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 75	18 AAC 50.345(a) & (o)	Test Reports	Within 60 days after completing a source test, submit one certified copy of the results.	Yes.	Annual Compliance Report.
AQ0062TVP04 – Condition 76	18 AAC 50.220(f)	Particulate Matter Calculations	In source testing for compliance with the particulate matter standards, the three-hour average is determined using the average of three one-hour test runs.	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
AQ0062TVP04 – Condition 77	40 CFR 60.7(f), 71.6(a)(3)(ii)(B)	Recordkeeping Requirements	Keep all records required by this permit for at least five years after the date of collection.	Yes.	Keep records in accordance with Conditions 77.1 and 77.2.
AQ0062TVP04 – Condition 78	18 AAC 50.205, 50.326(j), 50.345(a) & (j), 40 CFR 71.6(a)(3)(iii)(A)	Certification	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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 79	18 AAC 50.326(j)(3), 40 CFR 71.6(a)(3)(iii)(A)	Submittals	Submit one certified copy of reports, compliance certifications, and/or other submittals required by this permit.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 80	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 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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 81	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 requirements of this permit.	Yes.	Report in accordance with Conditions 81.1 through 81.3.
AQ0062TVP04 – Condition 82	18 AAC 50.346(b)(6), 40 CFR 71.6(a)(3)(iii)(A)	Operating Reports	Submit to the Department an original and one copy of 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.	Yes.	Report in accordance with Conditions 82.1 through 82.4.
AQ0062TVP04 – Condition 83	40 CFR 71.6(c)(5)	Annual Compliance Certification	Each year by March 31, compile and submit to the Department an annual compliance certification report.	Yes.	Report in accordance with Conditions 83.1 through 83.3

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
AQ0062TVP04 – Condition 84	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 emissions unit, of CO, NH ₃ , NO _x , PM ₁₀ , PM _{2.5} , SO ₂ , VOCs, and Lead (Pb) (and lead compounds) for the previous calendar year.	Yes.	Report in accordance with Conditions 84.1 through 84.4.
AQ0062TVP04 – Condition 85	40 CFR 60.13, 63.10(d) & (f), 71.6(c)(6)	NSPS and NESHAP Reports	Reports: Attach to the operating report for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the EPA; and Waivers: 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.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Condition 86	40 CFR 71.10(d)(1)	Permit Applications and Submittals	Comply with the requirements for submitting application information to the EPA Region 10.	Yes.	Comply with Conditions 86.1 through 86.4.
AQ0062TVP04 – Condition 87	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.
AQ0062TVP04 – Condition 88	40 CFR 71.6(a)(12)	Off Permit Changes	Changes may be made that are not addressed or prohibited by this permit.	Yes.	Comply with Conditions 88.1 through 88.4.
AQ0062TVP04 – Condition 89	40 CFR 71.6(a)(13)	Operational Flexibility	Section 502(b)(10) changes may be made 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.	Yes.	Comply with Conditions 89.1 through 89.3.

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
AQ0062TVP04 – Condition 90	18 AAC 50.326(c)(2) & (j)(2), 40 CFR 71.5(a)(1)(iii), 71.7(b) & (c)(1)(ii)	Permit Renewal	Submit to the Department a renewal application no sooner than October 29, 2023 and no later than October 29, 2024.	Yes.	Annual Compliance Audit.
AQ0062TVP04 – Conditions 91 through 96	18 AAC 50.345(a)-(d), (h)	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: AQ0062TVP04

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
AQ0062TVP04 – 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.
AQ0062TVP04 – Title Page	Revise	Permit No. AQ1411MSS02 for the Kuukpik V Drill Rig is being modified to remove Anna Platform as an authorized location.	Revise the permit throughout to reflect this change. Including: <ul style="list-style-type: none"> • Remove sentence, “All currently applicable stationary source-specific terms and conditions of Air Quality Control Minor Permit No. AQ1411MSS01, have been incorporated into this operating permit.” • Remove Table B. • Remove EU IDs K6 and K7 from Condition 1. • Remove Condition 1.5. • Remove Conditions 3.1(a)(vi) and 4.1(a)(iii). • Remove EU IDs K6 and K7 from Condition 6. • Remove Condition 6.5. • Remove Conditions 10 through 12. • Remove EU IDs K6 and K7 from Condition 14. • Remove EU IDs from heading above Condition 14.1. • Remove Condition 14.2. • Remove Conditions 15 and 16. • Remove EU IDs K1 through K7 from Condition 60.
AQ0062TVP04 – Section 1, Identification	Revise	The Permittee’s Responsible Official has been changed.	Revise the Permittee’s Responsible Official to: <p style="margin-left: 40px;"> 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 </p>

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
AQ0062TVP04 – Section 1, Identification	Revise	The Stationary Source and Building Contact has been changed.	Revise the Stationary Source and Building Contact to: Drew Anderson, Environmental Engineer 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503 (907) 777-8488 ananderson@hilcorp.com
AQ0062TVP04 – Section 1, Identification	Revise	The Permit Contact has been changed.	Revise the Permit Contact as follows: Drew Anderson, Environmental Engineer 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503 (907) 777-8488 ananderson@hilcorp.com
AQ0062TVP04 – Section 1, Identification	Revise	The Fee Contact address has been changed.	Revise the Fee Contact address as follows: Hilcorp Alaska, LLC / Accounts Payable 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503
AQ0062TVP04 – Condition 30.4b	Remove	Streamline the permit by removing gap-fill language in Condition 30.4b. The custom fuel monitoring schedule under NSPS Subpart GG is used to determine and report the sulfur content of fuel gas. Therefore, this requirement is unnecessary.	Streamline the permit by removing Condition 30.4b.
AQ0062TVP04 – Condition 35.3	Remove	Anna Platform does not mix fuels with lubricating oil.	Remove Condition 35.3.
AQ0062TVP04 – Condition 36	Remove	Streamline the permit by removing gap-fill language in Condition 36. The requirement to report liquid fuel grades for sulfur content is already included in Condition 14.1 and Anna Platform does not mix fuels with lubricating oil. Additionally, permit deviations reporting is already required by Condition 81. Therefore Condition 36 is duplicative and not necessary.	Remove Condition 36.

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
AQ0062TVP04 – Condition 37	Remove	The NSPS Subpart IIII deadline for importing or installing stationary CI ICE in previous model years is a general prohibition and does not apply to any emissions units at Anna Platform.	Remove Condition 37.
AQ0062TVP04 – Conditions 44-48	Revise	NESHAP Subpart ZZZZ was amended August 30, 2024, and these changes should be reflected in the permit.	Revise the language in Conditions 44 through 48 as applicable to reflect regulation changes in NESHAP Subpart ZZZZ, such as the new requirement for oil changes to be within 1 year + 30 days instead of annually.
AQ0062TVP04 – Conditions 44-48	Revise	EU ID 13 has been redesignated as an emergency engine and the updated requirements need to be included. See the Form B for EU ID 13.	Revise as follows: <ul style="list-style-type: none"> • Revise Condition 46.3 to include the updated Work and Management Practices Standards. • Remove Condition 46.4. • Add the requirements from 40 CFR 63.6625(f), 63.6640(f), and 63.6655(f).
AQ0062TVP04 – Condition 48.2	Remove	Streamline the permit by removing duplicative gap-fill language. Permit deviations reporting is already required by Condition 81.	Remove Condition 48.2

FORM E4
Permit Shield Request

Permit Number: AQ0062TVP04

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

Non-Applicable Requirements ¹	Reason for non-applicability and citation/basis
40 CFR 60 Subparts D, Db, E, CCCC, DDDD, EEEE, FFFF	No affected EUs within the permitted stationary source.
40 CFR 60 Subpart Dc	No affected EUs within the permitted stationary source. The insignificant heaters are not affected facilities because they are less than 10 MMBtu/hr.
40 CFR 60 Subparts K and Ka	No affected EUs within the permitted stationary source. The crude oil and produced water tanks were not constructed, modified, or reconstructed after May 19, 1978. Per 40 CFR 60.110(a) and 60.110a(a), affected facilities are petroleum liquids storage tanks with a capacity greater than 40,000 gallons. Per 40 CFR 60.111(b) and 60.111a(b), petroleum liquids do not include diesel fuel. The rest of the tanks are either less than 40,000 gallons or storing diesel fuel.
40 CFR 60 Subpart Kb	No affected EUs within the permitted stationary source. The crude oil and produced water tanks were not constructed, modified, or reconstructed after July 23, 1984. Per 40 CFR 60.110b, affected facilities are volatile organic liquid storage tanks with a capacity greater than or equal to 75 cubic meters (19,800 gallons). The rest of the tanks are less than 19,800 gallons.
40 CFR 60 Subparts OOOO, OOOOa, OOOOb	NSPS Subparts OOOO, OOOOa, and OOOOb apply only to onshore affected facilities. Anna 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 CFR 63.1271.
40 CFR 63 Subpart JJJJJ	No affected EUs within the permitted stationary source. The insignificant heaters and boiler are not boilers per the definition in 40 CFR 63.11237.

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).]

FORM E5
Alternative Monitoring Procedures (AMP) Form

Permit Number: AQ0062TVP04

Stationary Source-Wide Alternative Monitoring Procedures and/or EPA Waivers (*attach additional sheets as needed*):

Condition for which AMP or EPA waiver is applicable	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Used to Determine Compliance
AQ0062TVP04 – Condition 30.1d(iii)	40 CFR 60.334(h), 60.334(i)(3), Subpart GG	Custom Fuel Monitoring Schedule: Monitor semi-annually for fuel gas with an H ₂ S concentration less than 2,000 ppmw. There is no fuel- bound nitrogen and fuel gas nitrogen monitoring is waived.	Yes.	Fuel gas H ₂ S monitoring shall be performed semi-annually. Length-of-stain tube test covered by ASTM Methods D 4810-88 and D 4913-89, or Gas Producer’s Association Method 2377-86 can be used to determine H ₂ S concentration in gas combusted. Record the fuel source and fuel quality and report any change in the fuel source or quality.

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).]



Attachment

Permit

Operating Permit No. AQ0062TVP04

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0062TVP04

Issue Date: April 29, 2020

Expiration Date: April 29, 2025

The Alaska Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Hilcorp Alaska, LLC**, for the operation of the **Anna 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.

All currently applicable stationary source-specific terms and conditions of Air Quality Control Minor Permit No. AQ1411MSS01, have been incorporated into this operating permit.

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

Upon effective date of this permit, Operating Permit AQ0062TVP03 Revision 1 expires.

This operating permit becomes effective May 29, 2020.



James R. Plosay, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

AAC.....	Alaska Administrative Code	NAICS.....	North American Industrial Classification System
ADEC	Alaska Department of Environmental Conservation	NESHAPs.....	Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
AS.....	Alaska Statutes	NG.....	Natural Gas
ASTM.....	American Society for Testing and Materials	NH ₃	ammonia
BACT	Best Available Control Technology	NO _x	Nitrogen Oxides
bHp.....	Brake Horsepower	NSPS	Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
CAA or The Act	Clean Air Act	O & M.....	Operation and Maintenance
C.F.R.	Code of Federal Regulations	O ₂	Oxygen
CI.....	compression ignition	PAL.....	Plantwide Applicability Limitation
CO	Carbon Monoxide	Pb	lead
CO ₂ e	CO ₂ -equivalent	PM.....	Particulate Matter
Department	Alaska Department of Environmental Conservation	PM ₁₀	Particulate matter less than or equal to a nominal 10 microns in diameter
dscf	Dry standard cubic foot	PM _{2.5}	Particulate matter less than or equal to a nominal 2.5 microns in diameter
EPA	US Environmental Protection Agency	ppm	Parts per million
EU.....	Emissions unit	ppmv, ppmvd	Parts per million by volume on a dry basis
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	psia	Pounds per Square Inch (absolute)
GAPCP	Good Air Pollution Control Practices	PSD	Prevention of Significant Deterioration
GHG	Greenhouse Gas	PTE	Potential to Emit
GPH.....	gallons per hour	RICE	Reciprocating Internal Combustion Engine
H ₂ S	hydrogen sulfide	SIC.	Standard Industrial Classification
HAPs	Hazardous Air Pollutants [HAPs as defined in AS 46.14.990]	SIP.....	State Implementation Plan
HC	hydrocarbons	SO ₂	Sulfur dioxide
Hp.....	Horsepower	SPC	Standard Permit Condition or Standard Operating Permit Condition
ICE.....	internal combustion engine	4SRB	4 stroke rich burn
ID.....	Emissions unit Identification Number	TBD.....	to be determined
kW	kiloWatts	TPH.....	Tons per hour
LAER.....	Lowest Achievable Emission Rate	TPY	Tons per year
MACT	Maximum Achievable Control Technology [as defined in 40 C.F.R. 63]	VOC	volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
MMBtu/hr.....	Million British thermal units per hour	VOL	volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
MMscf	Million standard cubic feet		
MR&R	Monitoring, Recordkeeping, and Reporting		
NA	Not applicable		

vol%volume percent
wt%weight percent

wt%_{fuel} weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:	Hilcorp Alaska, LLC 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503	
Stationary Source Name:	Anna Platform	
Location:	60° 58' 36.98" North; 151° 18' 47.99" West	
Physical Address:	Upper Cook Inlet, AK	
Owner/Operator	Hilcorp Alaska, LLC 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503	
Permittee's Responsible Officials:	David S. Wilkins, Senior Vice President Vanessa Hughes, Kenai Asset Team Leader John Barnes, North Slope Senior Asset Team Leader Matt Brown, Cook Inlet Offshore Asset Team Leader 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:	David S. Wilkins, Senior Vice President 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503 (907) 777-8300 dwilkins@hilcorp.com	
Permit Contact:	Julieanna Potter, Environmental Specialist 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503 (907) 777-8444 jupotter@hilcorp.com	
Fee 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. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory

EU ID ¹	Tag Number	Emissions Unit Name	Emissions Unit Description	Fuel Type	Rating/ Size	Installation or Construction Date
2	A-PM-0500	Solar Saturn MK-I Turbine	Solar AC #3	Fuel Gas	750 kW	1971
3	A-PM-0420	Solar Saturn T-1400 Turbine	Solar Bing #1	Fuel Gas	1,400 Hp	1996
4	A-PM-0430	Solar Saturn T-1400 Turbine	Solar Bing #2	Fuel Gas	1,400 Hp	1997
5	A-PM-0560	Solar Saturn MK-II Turbine	Solar AC #2	Fuel Gas/ Diesel	800 kW	1985
7	A-PM-0390	Waukesha Triplex 1197G	Kobe Pump Drive #1	Fuel Gas	150 Hp	1968
8	A-PM-0400	Waukesha Triplex 1197G	Kobe Pump Drive #2	Fuel Gas	150 Hp	1968
9	A-PM-0410	Waukesha Triplex 1197G	Kobe Pump Drive #3	Fuel Gas	150 Hp	1968
10	A-PM-0440	Waukesha Triplex 1905G	Kobe Pump Drive #7	Fuel Gas	180 Hp	1968
11	A-PM-0450	Waukesha Triplex 1905G	Kobe Pump Drive #8	Fuel Gas	180 Hp	1968
12	A-PM-0460	Waukesha Triplex 1905G	Kobe Pump Drive #9	Fuel Gas	180 Hp	1968
13	A-PM-0028	Cat G-399 Engine	Standby Generator Drive	Fuel Gas	750 Hp	1982
14	A-PM-0880	Waukesha 1197D Engine	Fire Water Pump Drive	Diesel	192 Hp	1966
15	A-PM-0034	Cat DE-3208 Engine	Backup Generator Drive	Diesel	235 Hp	1984
16	A-CR-0650	John Deere 6135 Engine	SeaTrax West Crane	Diesel	500 Hp	2007 ²
17	A-CR-0651	Cat D-3406B Engine	Sea King East Crane	Diesel	325 Hp	1988
18	A-PM-0021	Detroit Diesel D6-71 Engine	Air Compressor Drive	Diesel	165 Hp	1979
19	A-SP-SF/HP/LP	Flare (HP/LP) and Pilot	Safety/Operating Flares	Fuel Gas	28 MMscf/day	1966

EU ID ¹	Tag Number	Emissions Unit Name	Emissions Unit Description	Fuel Type	Rating/ Size	Installation or Construction Date
27	A-V-0580	Glycol Regenerator	TEG Dehydration Unit	NA	2.72 MMscf/day	2007

Notes:

1. EU IDs 6 and 24 through 26 were removed from the Anna Platform in May 2014.
2. EU ID 16 was manufactured after April 1, 2006 but before the 2007 model year and was installed at the stationary source in 2007.

Table B – Kuukpik V Rig Emissions Unit Inventory^{1, 2}

EU ID	Emissions Unit Name	Emissions Unit Description	Fuel Type	Rating/ Size	Installation Date
K1	Hydraulic Power Unit	Detroit Diesel/ Series DDEC IV Engine	Diesel	850 Hp	TBD
K2	Hydraulic Power Unit	Detroit Diesel/ Series DDEC IV Engine	Diesel	850 Hp	TBD
K3	Light Plant Generator	Detroit Diesel/ Series 60 Engine	Diesel	600 Hp	TBD
K4	Light Plant Generator	Detroit Diesel/ Series 60 Engine	Diesel	600 Hp	TBD
K5	Portable Hydraulic Gen.	Engine (make/model unknown)	Diesel	101 Hp	TBD
K6	Boiler	Volcano Boiler	Diesel	3.6 MMBtu/hr	TBD
K7	Boiler	Volcano Boiler	Diesel	3.6 MMBtu/hr	TBD

Notes:

1. EU IDs K1 through K7 are portable and operated on a periodic and temporary basis.
2. EU IDs K1 through K5 are nonroad engines and rotate on and off the platform.

[18 AAC 50.326(a)]
 [40 C.F.R. 71.5(c)(3)]
 [Minor Permit AQ1411MSS01 Table 1, 7/9/2015]

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 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j)(4), 50.055(a)(1), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(1), (a)(3), & (c)(6)]

- 1.1. For EU IDs 2 through 4 and 7 through 13, burn only gas as fuel. Monitoring for these emissions units shall consist of a statement in each operating report under Condition 82 indicating whether each of these emissions units burned only gas during the period covered by the report. Report under Condition 81 if any fuel other than gas is burned.
- 1.2. For EU ID 5, burn only gas as the primary fuel. Monitoring for this emissions unit shall consist of a statement in each operating report required under Condition 82 indicating whether this emissions unit burned gas as the primary fuel during the period covered by the report. If EU ID 5 operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 13.
- 1.3. For each of EU IDs 14 through 18, as long as the emissions unit does not exceed the significant emissions thresholds listed in 18 AAC 50.326(e),¹ monitoring shall consist of an annual compliance certification under Condition 83 for the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 82 if any of EU IDs 14 through 18 exceeds the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.
- 1.4. For the flare, EU ID 19, monitor, record and report in accordance with Condition 5.
- 1.5. For each of EU IDs K6 and K7, the Permittee shall monitor, record, and report as follows:

[Condition 3.1 – 3.3, Minor Permit AQ1411MSS01, 7/9/2015]

- a. Within two days of initial startup after each relocation to the Anna Platform, the Permittee shall observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.
- b. Record and report in accordance with Conditions 3 and 4.

¹ Operational hours corresponding to 2 tpy NO_x (worst-case significant emissions threshold listed in 18 AAC 50.326(e)) based on the emission factors used to calculate Potential to Emit (PTE) for EU IDs 14 through 18 operating at full load are 672 hours, 549 hours, 1,134 hours, 397 hours, and 782 hours, respectively, per rolling 12-month period.

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

Liquid Fuel-Fired Emissions Units, EU IDs 14 through 18

- 2. Visible Emissions Monitoring.** When required by Condition 1.3, the Permittee shall observe the exhaust of each of EU IDs 14 through 18 for visible emissions using the Method 9 Plan under Condition 2.2.

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

- 2.1. 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.
- 2.2. **Method 9 Plan.** For all observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.²
- a. First Method 9 Observation. Except as provided in Condition 2.1, observe exhausts of EU IDs 14 through 18 according to the following criteria:
- (i) Except as provided in Conditions 2.2.a(ii) through 2.2.a(iv), for any of EU IDs 14 through 18, observe exhaust within six months after the issue date of this permit.
 - (ii) In the event of replacement³ of any of EU IDs 14 through 18 during the term of this permit, observe exhaust within 30 days of startup of the newly installed emissions units.
 - (iii) For any of EU IDs 14 through 18, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which any of the significant emissions thresholds in 18 AAC 50.326(e) was exceeded.
 - (iv) For any of EU IDs 14 through 18 with intermittent operations, within 30 days of the unit's next scheduled operation.
- b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.2.a, perform 18-minute observations at least once in each calendar month that an emissions unit operates; or for an emissions unit with intermittent operations, at least once in each calendar month that the emissions unit is scheduled to operate.
- c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under Condition 2.2.b, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more observations are greater than 20 percent, perform observations

² Visible emissions observations are not required during emergency operations.

³ "Replacement," as defined in 40 C.F.R. 51.166(b)(32).

- (i) within six months after the preceding observation, or
 - (ii) for an emissions 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 observations under Condition 2.2.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform observations
- (i) within twelve months after the preceding observation; or
 - (ii) for an emissions 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-consecutive-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 observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.2.b, and continue monitoring in accordance with the Method 9 Plan.

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

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

3.1. For all Method 9 observations under Conditions 1.5 and 2.2,

- a. the observer shall record the following:
 - (i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in Section 11;
 - (ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating 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 Form in Section 11;

- (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; and
 - (vi) the date and time of initial startup of EU IDs K6 and K7 after each relocation to the Anna Platform.
- b. To determine the six-consecutive-minute average opacity,
- (i) divide the observations recorded on the record sheet into sets of 24 consecutive observations;
 - (ii) sets need not be consecutive in time and in no case shall two sets overlap;
 - (iii) for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; and
 - (iv) record the average opacity on the sheet.
- c. Calculate and record the highest six-consecutive- and 18-consecutive-minute average opacities observed.
- 3.2. The records may be kept in electronic format.
- 4. Visible Emissions Reporting.** The Permittee shall report visible emissions as follows:
- [18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]
- 4.1. Include in each operating report under Condition 82 for the period covered by the report:
- a. for all Method 9 observations under Conditions 1.5 and 2.2:
 - (i) copies of the observation results (i.e. opacity observations) for each emissions unit, except for the observations the Permittee has already supplied to the Department; and
 - (ii) a summary to include:
 - (A) number of days observations were made;
 - (B) highest six-consecutive- and 18-consecutive-minute average opacities;
 - (C) dates when one or more observed six-consecutive-minute averages were greater than 20 percent;
 - (iii) for EU IDs K6 and K7, the dates and times recorded under Condition 3.1.a(vi); and
 - b. a summary of any monitoring or recordkeeping required under Conditions 1.5, 2 and 3 that was not done.

- 4.2. Report under Condition 81:
 - a. the results of Method 9 observations that exceed an average of 20 percent opacity for any six-consecutive-minute period; and
 - b. if any monitoring under Conditions 1.5 and 2 was not performed when required, report within three days of the date the monitoring was required.

Flares, EU ID 19

5. **Visible Emissions MR&R.** For EU ID 19, the Permittee shall observe one daylight flare event⁴ 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.

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

- 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. The records required by Condition 5.2 may be kept in electronic format.
- 5.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. 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 82 an explanation of the reason the event was not monitored.
- 5.5. Attach copies of the records required by Condition 5.2 with the operating report required by Condition 82 for the period covered by that report.
- 5.6. Report under Condition 81 whenever the opacity standard in Condition 1 is exceeded.

⁴ 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.

Particulate Matter (PM) Emissions Standards

- 6. Industrial Process and Fuel-Burning Equipment PM Emissions.** The Permittee shall not cause or allow particulate matter emitted from EU IDs 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(b)(1), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(1), (a)(3) & (c)(6)]

- 6.1. For EU IDs 2 through 4 and 7 through 13, comply with Condition 1.1.
- 6.2. For EU ID 5, the Permittee shall monitor, record and report according to Condition 1.2.
- 6.3. For each of EU IDs 14 through 18, as long as the emissions unit does not exceed the significant emissions thresholds listed in 18 AAC 50.326(e),⁵ monitoring shall consist of an annual compliance certification under Condition 83 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 82 if any of EU IDs 14 through 18 exceeds the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 7 through 9 for the remainder of the permit term for that emissions unit.
- 6.4. For the flare, EU ID 19, monitor, record and report in accordance with Condition 5.
- 6.5. For each of EU IDs K6 and K7, the Permittee shall monitor, record, and report in accordance with Conditions 10 through 12.

PM MR&R

Liquid Fuel-Burning Engines and Turbines, EU IDs 5 and 14 through 18

- 7. Particulate Matter Monitoring.** The Permittee shall conduct source tests on the diesel engines, EU IDs 14 through 18 (when required by Condition 6.3), and on the diesel-fired turbine EU ID 5 (when required by Condition 13.3.a), to determine the concentration of PM in the exhaust of each of the emissions units as follows:

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

- 7.1. If the result of any Method 9 observation conducted under Condition 2.2 for any of EU IDs 14 through 18 is greater than the criteria of Conditions 7.2.a or 7.2.b, or if the Method 9 observation conducted under Condition 13.3 for EU ID 5 exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either:

⁵ Operational hours corresponding to 2 tpy NO_x (worst-case significant emissions threshold listed in 18 AAC 50.326(e)) based on the emission factors used to calculate Potential to Emit (PTE) for EU IDs 14 through 18 operating at full load are 672 hours, 549 hours, 1,134 hours, 397 hours, and 782 hours, respectively, per rolling 12-month period.

- a. make repairs and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 7.2; or
 - b. except as exempted under Condition 7.4, conduct a PM source test according to requirements set out in Section 6.
- 7.2. Conduct the PM source test or make repairs according to Condition 7.1, if any Method 9 observation under Condition 2.2 results in an 18-minute average opacity greater than
 - a. 20 percent for an emissions unit with an exhaust stack diameter that is equal to or greater than 18 inches; or
 - b. 15 percent for an emissions unit with an exhaust stack diameter that is less than 18 inches, unless the Department has waived this requirement in writing.
- 7.3. During each one-hour PM source test run under Condition 7.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.
- 7.4. The PM source test requirements in Condition 7.1.b are waived for an emissions unit if a source test on that unit has shown compliance with the PM standard during this permit term.
- 8. PM Recordkeeping.** The Permittee shall keep records of the results of any PM source test and visible emissions observations conducted under Condition 7.

[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]
- 9. Particulate Matter Reporting.** The Permittee shall report as follows:

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

 - 9.1. Report under Condition 81
 - a. the results of any PM source test that exceed the PM emissions limit; or
 - b. if the requirements under Condition 7.1 were triggered and the Permittee did not comply on time with either Condition 7.1.a or 7.1.b. Report the deviation within 24 hours of the date compliance with Condition 7.1 was required.
 - 9.2. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 7.2.a or 7.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 7.2.

- 9.3. In each operating report under Condition 82, include for the period covered by the report:
 - a. a summary of the results of any PM testing and visible emissions observations under Condition 7; and
 - b. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 7.2, if they were not already submitted.

Liquid Fuel-Burning Boilers and Heaters, EU IDs K6 and K7

- 10. PM Monitoring.** The Permittee shall demonstrate compliance with Condition 6 by conducting PM source tests on any of EU IDs K6 and K7, as follows:

[Condition 4.1(a) & (b), Minor Permit AQ1411MSS01, 7/9/2015]
[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i) & (c)(6)]

- 10.1. Except as exempted under Condition 10.3, conduct a PM source test according to the requirements in Section 6 no later than 90 calendar days after the Method 9 visible emissions observations conducted under Condition 1.5 showed an exceedance of the limit in Condition 1.
- 10.2. During each one-hour PM source test run under Condition 10.1, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.
- 10.3. The PM source test requirement in Condition 10.1 is waived for an emissions unit if
 - a. a source test on that unit has shown compliance with the PM standard during this permit term, or
 - b. corrective action was taken to reduce visible emissions and an 18-minute visible emissions observation is conducted within 30 days to show that the excess visible emissions described in Condition 10.1 no longer occur.

- 11. PM Recordkeeping.** The Permittee shall keep records of the results of any PM source test and visible emissions observations conducted under Condition 10.

[Condition 4.1(c), Minor Permit AQ1411MSS01, 7/9/2015]
[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]

- 12. PM Reporting.** The Permittee shall report as follows:

[Condition 4.1(d) & (e), Minor Permit AQ1411MSS01, 7/9/2015]
[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), and 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

- 12.1. In each operating report required by Condition 82, include for the period covered by the report a summary of the results of any source test and visible emissions observations conducted under Condition 10.

- 12.2. Report in accordance with Condition 81 any time the results of a source test exceed the PM emission standard in Condition 6.

VE & PM MR&R for Dual Fuel-Fired Emissions Unit, EU ID 5

13. The Permittee shall monitor, record and report the monthly hours of operation of EU ID 5 when operating on a back-up liquid fuel.

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

- 13.1. If EU ID 5 does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual compliance certification under Condition 83.
- 13.2. For EU ID 5, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 13.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel, or during the next scheduled operation on back-up liquid fuel.
- 13.3. When required to do so by Condition 13.2, observe the emissions unit exhaust, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18-minutes to obtain 72 consecutive 15-second opacity observations.
- a. If the observation exceeds the standard in Condition 1, monitor as described in Condition 7.
- b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year⁶.
- 13.4. Keep records and report in accordance with Conditions 3, 4, 8, and 9, as applicable.
- 13.5. Report under Condition 81 if the Permittee fails to comply with any of Conditions 13.2, 13.3 or 13.4.

Sulfur Compound Emission Standards Requirements

14. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from EU IDs 2 through 5 and 7 through 19 listed in Table A and EU IDs K6 and K7 listed in Table B to exceed 500 ppm averaged over three hours.

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

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

Sulfur Compound MR&R

For Fuel Oil⁷, EU ID 5 (when burning diesel), EU IDs 14 through 18, K6 and K7

- 14.1. For EU ID 5 (when burning diesel) and EU IDs 14 through 18:
- a. The Permittee shall do one of the following for each shipment of fuel:
 - (i) If the fuel grade requires a sulfur content less than 0.5 wt% S_{fuel} , keep receipts that specify fuel grade and amount; or
 - (ii) If the fuel grade does not require a sulfur content less than 0.5 wt% S_{fuel} , keep receipts that specify fuel grade and amount and
 - (A) test the fuel for sulfur content; or
 - (B) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.
 - b. Fuel testing under Condition 14.1 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).
 - c. 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 the material balance calculation in Section 12 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
 - d. The Permittee shall report as follows:
 - (i) If SO_2 emissions calculated under Condition 14.1.c exceed 500 ppm, the Permittee shall report under Condition 81. When reporting under this condition, include the calculation under Condition c.
 - (ii) The Permittee shall include in the operating report required by Condition 82
 - (A) a list of the fuel grades received at the stationary source during the reporting period;
 - (B) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and
 - (C) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.

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

⁷ Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 C.F.R. 60.41b, effective 7/1/07.

- 14.2. For EU IDs K6 and K7, the Permittee shall demonstrate compliance with the SO₂ standard in Condition 14 by complying with the fuel sulfur limit in Condition 15 and the associated monitoring, recordkeeping, and reporting requirements under Condition 15.1.

[Minor Permit AQ1411MSS01, Condition 5.1, 7/9/2015]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

For Fuel Gas, EU IDs 2 through 4, 7 through 13, and 19, and 5 (when burning fuel gas)

- 14.3. The Permittee shall analyze a representative sample of the fuel 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).
- 14.4. The Permittee shall keep records of the sulfur content analysis required under Condition 14.3.
- 14.5. The Permittee shall include copies of the records required by Condition 14.4 with the operating report required by Condition 82 for the period covered by the report.
- 14.6. The Permittee shall report as excess emissions, in accordance with Condition 81, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 14.

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

Pre-construction Permit⁸ Requirements

Owner Requested Limits to Protect Alaska Ambient Air Quality Standards (AAAQS)

- 15. Liquid Fuel Sulfur Content Limit, Drill Rig EUs.** To protect the 1-hour, 3-hour, 24-hour and annual SO₂ Alaska AAAQS, the Permittee shall limit the liquid fuel sulfur content to no more than 15 ppmw for all Kuukpik V Drill Rig emissions units listed in Table B.

- 15.1. The Permittee shall do one of the following for each shipment of fuel for the Kuukpik V Drill Rig:
- a. If the fuel grade requires a sulfur content of 15 ppmw or less, keep receipts that specify the fuel grade and amount of fuel; or
 - b. If the fuel grade does not require a sulfur content of 15 ppmw or less, keep receipts that specify the fuel grade and amount of fuel and:
 - (i) test the fuel for sulfur content; or

⁸ *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.

- (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.
- c. Fuel testing under Condition 15 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).
- d. The Permittee shall include in the operating report required by Condition 82:
 - (i) a list of the fuel grades received and used by the Kuukpik V Drill Rig during the reporting period; and
 - (ii) copies of any test results obtained in accordance with Condition 15.1.b.
- e. If the sulfur content of any liquid fuel exceeds the limit in Condition 15, the Permittee shall report in accordance with Condition 81.

[Minor Permit AQ1411MSS01, Condition 6, 7/9/2015]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

16. Drill Rig Configuration Limits. To protect the annual NO₂, 24-hour PM-10, annual PM-2.5, and 1-hour, 3-hour, 24-hour, and annual SO₂ AAQS, the Permittee shall comply with the following:

- 16.1. Limit the total rated capacity of the Kuukpik V Drill Rig nonroad engines (NREs) to no more than 3,071 Hp.
 - a. Any time a change is made to the Kuukpik V nonroad engine emissions unit inventory, calculate and record the total nonroad engine rated capacity (Hp).
 - b. Include the total nonroad engine rated capacity (Hp) in each operating report required under Condition 82.
 - c. Report in accordance with Condition 81 any time the total nonroad engine rated capacity (Hp) exceeds the limit in Condition 16.1.
- 16.2. Construct and maintain vertical, uncapped exhaust stacks for all Kuukpik V Drill Rig EUs, except as noted below:
 - a. the exhaust stacks for EU IDs K3 and K4 (light plant generators) may be tilted to no more than 45-degrees from vertical;
 - b. the exhaust stacks for EU IDs K6 and K7 (boilers) may be capped; and
 - c. the exhaust stacks for EU IDs K1, K2, K3, K4 and K5 may have flapper valve rain covers, or other similar design, that does not hinder the exhaust plume momentum.
- 16.3. Report in accordance with Condition 81 for any stack configuration not allowed by Condition 16.2.

[Minor Permit AQ1411MSS01, Condition 7, 7/9/2015]

Insignificant Emissions Units

17. For emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

17.1. **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)]

17.2. **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)]

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

[18 AAC 50.055(c)]

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

- a. Submit the certification of compliance of Condition 83 based on reasonable inquiry;
- b. Comply with the requirements of Condition 64;
- c. Report in the operating report required by Condition 82 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds; and
- d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 17.1, 17.2, and 17.3.

[18 AAC 50.346(b)(4)]

Section 4. Federal Requirements

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

NSPS Subpart A – General Provisions

18. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility⁹ or existing facility¹⁰ regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator¹¹ written notification or, if acceptable to both the EPA and the Permittee, electronic notification, as follows:

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

18.1. a notification of the date construction (or reconstruction as defined under 40 C.F.R. 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form;

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

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

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

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

- a. information describing the precise nature of the change,
- b. present and proposed emission control systems,
- c. productive capacity of the facility before and after the change, and
- d. the expected completion date of the change; and

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

18.4. a notification of any proposed replacement of components 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:

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.

¹⁰ *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a New Source Performance Standard is promulgated, 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.

¹¹ The Department defines the “the Administrator” to mean “the EPA and the Department” for conditions implementing the federal emission standards.

[40 C.F.R. 60.15(d), Subpart A]

- a. the name and address of owner or operator,
- b. the location of the existing facility,
- c. a brief description of the existing facility and the components that are to be replaced,
- d. a description of the existing and proposed air pollution control equipment,
- e. an estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,
- f. the estimated life of the existing facility after the replacements, and
- g. a discussion of any economic or technical limitations the facility may have in complying with the applicable performance standards after the proposed replacements.

19. 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 3 through 5, any malfunctions of the associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 3 through 5 is inoperative.

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

20. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit an excess emissions and monitoring systems performance (EEMSP)¹² report and/or summary report form (see Condition 21) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

20.1. 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]

20.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 3 through 5; 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]

¹² The federal EEMSP report is not the same as the state excess emission report required by Condition 81. Excess emissions are defined in applicable subparts.

20.3. 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]

20.4. 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]

21. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A to the Statement of Basis) for each pollutant monitored for EU IDs 3 through 5. 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 or the EPA, as follows:

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

21.1. 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 20 is requested, or

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

21.2. 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 report described in Condition 20.

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

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

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

23. NSPS Subpart A Good Air Pollution Control Practice (GAPCP). At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 3 through 5, 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 3 through 5.

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

- 24. 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 27 and 29, 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 3 through 5 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]

- 25. 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 27, 29, and 34. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.12, Subpart A]

NSPS Subpart GG¹³ – Turbines, EU IDs 3, 4, and 5

- 26. NSPS Subpart GG Applicability.** For EU IDs 3, 4, and 5 listed in Table A, the Permittee shall comply with the applicable requirements for stationary gas turbines, which commenced construction, modification, or reconstruction after October 3, 1977, with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour based on the lower heating value of the fuel fired.

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

- 26.1. *Emergency Fuel¹⁴ Exemption.* Stationary gas turbines when fired with natural gas are exempt from NSPS Subpart GG NO_x standards under 40 C.F.R. 60.332(a)(2), set out under Condition 27, when being fired with an emergency fuel. The dual fuel-fired turbine, EU ID 5, meets these criteria. The Permittee shall

- a. include in the report required in Condition 20 each period during which an exemption is in effect; and
- b. report for each period, the type, reasons, and duration of the firing of the emergency fuel.

[40 C.F.R. 60.332(k), and 60.334(j)(4), Subpart GG]

¹³ The provisions of NSPS Subpart GG listed in Conditions 26 through 30 are current as amended through Feb. 27, 2014. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

¹⁴ *Emergency fuel* is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.

27. NSPS Subpart GG NO_x Standard. The Permittee shall not allow the exhaust gas concentration of NO_x, on a dry exhaust basis at 15 percent oxygen (O₂) and ISO standard day conditions,¹⁵ from EU IDs 3, 4, and 5 listed in Table A to exceed 150 ppmv.

[18 AAC 50.040(a)(2)(V), (j)(4) and 50.326(j)]

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

[40 C.F.R. 60.332(a)(2) & (d), Subpart GG]

28. NSPS Subpart GG NO_x MR&R Requirements. The Permittee shall monitor, record, and report compliance with the respective Subpart GG NO_x standard under Condition 27, as follows:

28.1. 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 27 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 28.1.a(i) or 28.1.a(ii).
- (i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 27, the Permittee shall conduct a NO_x and O₂ source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, within the first applicable criteria below:
- (A) Within 5 years of the latest performance test, or
- (B) Within 1 year of the effective date of this permit if the last source test occurred greater than five years prior to effective date of this permit and the 400-hour threshold was triggered within 6 months of the permit's effective date, or
- (C) Within 1 year after exceeding 400 hours of operation in a 12-month period if the last source test occurred greater than 4 years prior to the exceedance.
- (ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the most stringent NO_x limit shown in Condition 27, the Permittee shall conduct a NO_x and O₂ source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 27.
- b. **Substituting Test Data.** The Permittee may use results of a source test completed under Condition 28.1.a performed on only one of a group of turbines to satisfy the requirements of the condition for the other turbines in the group if

¹⁵ ISO (*International Organization for Standardization*) standard day conditions means 288 degrees Kelvin (59 degrees F), 60 percent relative humidity and 101.3 kilopascals (14.7 psi) pressure. [ref. 40 C.F.R. 60.331(g)]

- (i) the Permittee demonstrates that test results are less than or equal to 90 percent of the most stringent NO_x limit shown in Condition 27, and are projected under Condition 28.1.c to be less than or equal to 90 percent of the most stringent limit at maximum load;
 - (ii) for any source test conducted after the effective date of this permit, the Permittee identifies in a source test plan under Condition 73
 - (A) the turbine to be tested;
 - (B) the other turbines in the group that are to be represented by the test; and
 - (C) why the turbine to be tested is representative, including that each turbine in the group
 - (1) is located at a stationary source operated and maintained by the Permittee;
 - (2) is tested under close to identical ambient conditions;
 - (3) is the same make and model and has identical injectors and combustor; and
 - (4) uses the same fuel type from the same supply origin.
 - (iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the most stringent NO_x limit shown in Condition 27.
- c. **Load.** The Permittee shall comply with the following:
- (i) Conduct all tests under Condition 28.1 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department or by EPA if the circumstances of the Department or EPA approval are still valid at the time. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.
 - (ii) Demonstrate in the source test plan whether the test is scheduled when maximum NO_x emissions are expected.
 - (iii) If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data,
 - (A) for each such turbine the Permittee shall provide to the Department as an attachment to the source test report

- (1) additional test information from the manufacturer or from previous testing of units in the group of turbines; if using previous testing of the group of turbines, the information must include all available test data for the turbines in the group, and
 - (2) a demonstration based on the additional test information that projects the test results from Condition 28.1 to predict the highest load at which emissions will comply with the limit in Condition 27;
- (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 27;
- (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 28.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 28.1.c(iii)(C) and
- (iv) In order to perform a source test required under Condition 28.1, the Permittee may operate a turbine at a higher load than that prescribed by Condition 28.1.c(iii).
- (v) For the purposes of Conditions 28.1 through 28.3, 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.

28.2. **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 28.1.c(iii) does not show compliance with the NO_x limit in Condition 27 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 28.2.a shall be hourly or otherwise as approved by the Department.
 - (iii) Within one month after submitting a demonstration under Condition 28.1.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 28.1.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how load or load surrogates will be measured, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.
- b. For any turbine subject to Condition 27, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

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

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

- a. In each operating report under Condition 82 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 28.1.c(iii)
 - (i) the load limit;
 - (ii) the turbine identification; and
 - (iii) the highest load recorded under Condition 28.2.a during the period covered by the operating report.
- b. In each operating report under Condition 82 for each turbine for which Condition 28.1 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 81 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 28.1.a(i) or 28.1.a(ii) but not performed, or
 - (iii) the turbine was operated at a load exceeding that allowed by Conditions 28.1.c(iii)(B) and 28.1.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

- 29. NSPS Subpart GG SO₂ Standard.** For EU IDs 3, 4, and 5, the Permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 wt% S_{fuel} (8000 ppmw).

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

- 30. NSPS Subpart GG SO₂ MR&R Requirements.** The Permittee shall monitor, record, and report compliance with the applicable Subpart GG SO₂ standard in Condition 29, as follows:

- 30.1. **Monitoring.** The Permittee shall monitor compliance with the Subpart GG SO₂ standard in Condition 29, 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. Determine the sulfur content of the fuel 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), the Permittee may use ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see 40 C.F.R. 60.17), which measure the major sulfur compounds.

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

- b. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u),¹⁶ regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee shall use the following source of information to make the required demonstration:¹⁷

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

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

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

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

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

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

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

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

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

- (i) *Fuel oil.* For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 C.F.R. Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

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

¹⁶ As defined in 40 C.F.R. 60.331(u), “*Natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth’s surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

¹⁷ Periodic fuel sulfur monitoring under Condition 30.1.a and reporting under Conditions 30.4.a do not apply to Subpart GG turbines that have demonstrated that natural gas fuel meets the definition of 40 C.F.R. 60.331(u) as set out by Condition 30.1.b.

- (ii) *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]

- (iii) *Custom schedules.* Notwithstanding the requirements of Condition 30.1.d(ii), 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 29. 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 liquid fuels, use ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see 40 C.F.R. 60.17); or

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

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

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

- c. 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 77.

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

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

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

- a. For each affected unit monitored periodically to determine the fuel sulfur content under Condition 30.1.a, the Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 20, except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Condition 20, periods of excess emissions and monitor downtime that shall be reported are defined as follows:

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

- (i) For samples of gaseous fuel obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

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

- b. If electing to comply with Condition 30.1.b, the Permittee shall include with the operating report under Condition 82 a certified statement indicating that the fuel gas combusted at the stationary source meets the definition of natural gas in 40 C.F.R. 60.331(u), pursuant to 40 C.F.R. 60.334(h)(3).

NSPS Subpart III¹⁸ – Compression Ignition Internal Combustion Engines (CI ICE), EU ID 16

31. NSPS Subpart III Applicability and General Compliance Requirements. For EU ID 16 listed in Table A, the Permittee shall comply with the applicable requirements for stationary CI ICE located in remote areas of Alaska¹⁹ whose construction²⁰ commences after July 11, 2005 where the stationary CI ICE is manufactured after April 1, 2006 and is not a fire pump engine.

31.1. For EU ID 16, the Permittee shall comply with the applicable provisions of 40 C.F.R. 60 Subpart A as specified in Table 8 to Subpart III, and applicable provisions of Subpart III as specified in Conditions 32 through 36.

[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)(i), 60.4218 and Table 8, Subpart III]

32. NSPS Subpart III GAPCP. Except as permitted under Condition 32.1, the Permittee shall operate and maintain EU ID 16 and control device according to the manufacturer's written instructions, may change only those emission-related settings that are permitted by the manufacturer, and shall meet the requirements of Condition 34. In addition, the Permittee shall operate and maintain EU ID 16 that achieves the emissions standards as required in Condition 34 over the entire life of the engine.

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

32.1. If the Permittee does not install, configure, operate, and maintain EU ID 16 and control devices according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

- a. Keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- b. In addition, conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

[40 C.F.R. 60.4211(g)(2), Subpart III]

¹⁸ The provisions of NSPS Subpart III listed in Conditions 31 through 37 are current as amended through November 13, 2019. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

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

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

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

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

- 33. NSPS Subpart III Fuel Requirements.** For EU ID 16, the Permittee is exempt from the fuel requirements of 40 C.F.R. 60.4207, and may use fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel.

[18 AAC 50.040(a)(2)(OO) & (j); & 50.326(j)]

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

[40 C.F.R. 60.4216(d) & (f), Subpart III]

- 33.1. The sulfur content of the used lubricating oil must be less than 200 ppm.
- 33.2. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 C.F.R. 279.11.

- 34. NSPS Subpart III Emission Standards.** The Permittee shall comply with the following emission standards:

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

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

- 34.1. Exhaust emissions from EU ID 16 (stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska) shall not exceed the following applicable exhaust emission standards (Tier 1 standards for Nonroad Engines):
 - a. 1.3 g/kW-hr (1.0 g/Hp-hr) for HC
 - b. 9.2 g/kW-hr (6.9 g/Hp-hr) for NO_x;
 - c. 11.4 g/kW-hr (8.5 g/Hp-hr) for CO; and
 - d. 0.54 g/kW-hr (0.40 g/Hp-hr) for PM.

[40 C.F.R. 60.4216(c), 60.4205(a), and Table 1, Subpart III]

- 35. NSPS Subpart III Monitoring and Recordkeeping.** The Permittee shall comply with the following:

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

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

- 35.1. For EU ID 16, demonstrate compliance with the emission standards by keeping records of engine manufacturer data indicating compliance with the applicable emission standards in Condition 34.

[40 C.F.R. 60.4211(b)(3), Subpart III]

- 35.2. For records of compliance with the fuel requirements under Condition 33.1, keep records of receipts that specify the diesel fuel grade and amount received.

[40 C.F.R. 71.6(c)(6)]

- 35.3. If using fuels mixed with used lubricating oil as specified in Condition 33, comply with the following:

- a. Determine that the used oil to be burned for energy recovery meets the fuel specifications of 40 C.F.R. 279.11 and the sulfur content limit in Condition 33.1 by performing approved analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.
- b. Keep records of the following:
 - (i) copies of analyses of the used oil (or other information used to make the compliance determination in Condition 35.3.a) for three years;
 - (ii) the amount of the used lubricating oil to be blended;
 - (iii) the amount of other distillate fuel oil to be mixed with the used lubricating oil; and
 - (iv) the ratio of the lubricating oil to the total fuel blend.

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

36. NSPS Subpart III Reporting. The Permittee shall report as follows:

- 36.1. Include with the operating report required under Condition 82 a copy of the records required in Conditions 35.2 and 35.3.b for the period covered by the report.
- 36.2. Report in accordance with Condition 81 if any of the requirements in Conditions 31 through 35 and 37 was not met.

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

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

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

[40 C.F.R. 60.4200(a)(4), 60.4208(a) – (i), & 60.4216(e), Subpart III]

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

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

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

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

- 37.3. The requirements of Condition 37 do not apply to stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

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

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

NESHAP Subpart A – General Provisions

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

38.1. Table 2 to NESHAP Subpart HH for EU ID 27 listed in Table A; and

38.2. Table 8 to NESHAP Subpart ZZZZ for EU IDs 7 through 15, 17 and 18 listed in Table A.

[18 AAC 50.040(c)(1), (c)(13) & (c)(23), (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]
[40 C.F.R. 63.1-63.15, Subpart A]
[40 C.F.R. 63.764(a) & Table 2, Subpart HH]
[40 C.F.R. 63.6665 & Table 8, Subpart ZZZZ]

NESHAP Subpart HH²¹ – Oil and Natural Gas Production Facilities, EU ID 27

39. NESHAP Subpart HH Applicability and General Requirements. The Permittee shall comply with the applicable Subpart HH requirements for the affected triethylene glycol (TEG) dehydration unit, EU ID 27 listed in Table A, located at an oil and NG production facility classified as an area source of hazardous air pollutant (HAP).

[18 AAC 50.040(c)(13) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.760(a) & (b)(2), Subpart HH]

39.1. **Major Source Determination.** If Anna Platform has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), the Permittee shall update its major source determination within 1 year of the prior determination, and each year thereafter, using gas composition data measured during the preceding 12 months.

[40 C.F.R. 63.760(c), Subpart HH]

a. If Anna Platform subsequently increases its emissions or its potential to emit above the major source levels, and becomes a major source, the Permittee must comply thereafter with all provisions of 40 C.F.R. 63 Subpart HH applicable to a major source starting immediately upon becoming a major source.

[40 C.F.R. 63.760(a)(1) & (f)(2), Subpart HH]

39.2. **NESHAP Subpart HH Affirmative defense.** The Permittee shall comply with the provisions of 40 C.F.R. 63.762 if electing to assert an affirmative defense for violations of emission standards during malfunction.

[40 C.F.R. 63.762(a) – (d), Subpart HH]

²¹ The provisions of NESHAP Subpart HH listed in Conditions 39 through 43 are current as amended through August 16, 2012. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

39.3. **NESHAP Subpart HH GAPCP.** At all times the Permittee must operate and maintain EU ID 27, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 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. 63.764(j), Subpart HH]

40. **NESHAP Subpart HH General Standards.** For the triethylene glycol (TEG) dehydration unit, EU ID 27, the Permittee shall comply with the following:

[18 AAC 50.040(c)(13), (j)(4) & 50.326(j)]

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

[40 C.F.R. 63.760(b)(2) and 63.764(d)(2), (e)(1), & (j), Subpart HH]

40.1. **Glycol Circulation Rate.** Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 * 3.0 \text{ gal}_{TEG/lb_{H_2O}} * \frac{(F * [I - O])}{24 \text{ hr/day}}$$

Where:

L_{OPT} = Optimal circulation rate, gal/hr

F = Gas flowrate (MMSCF/D)

I = Inlet water content (lb/MMSCF)

3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal_{TEG}/lb_{H₂O})

1.15 = Adjustment factor included for a margin of safety

[40 C.F.R. 63.764(d)(2)(i), Subpart HH]

a. Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with the equation in Condition 40.1. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with Condition 40, the owner or operator must

(i) calculate an alternate circulation rate using GRI-GLYCalc™, Version 3.0 or higher; and

(ii) document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with 40 C.F.R. 63.775(c)(7).

[40 C.F.R. 63.764(d)(2)(ii), Subpart HH]

- b. Maintain a record of the determination specified in Condition 40.1.a in accordance with the requirements in Condition 42.5 and submit the Initial Notification in accordance with the requirements in 40 C.F.R. 63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with Condition 40 or 40.1.a and submit the information specified under 40 C.F.R. 63.775(c)(7)(ii) through (v).

[40 C.F.R. 63.764(d)(2)(iii), Subpart HH]

- 40.2. **Exemption.** The Permittee is exempt from the requirements of Condition 40.1 if the criteria listed in Condition 40.2.a or 40.2.b are met, except that the records of the determination of these criteria must be maintained as required in Condition 42.4.

[40 C.F.R. 63.764(e)(1), Subpart HH]

- a. The actual annual average flow rate of natural gas to glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in Condition 41.1; or
- b. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in Condition 41.2.

[40 C.F.R. 63.764(e)(1)(i), Subpart HH]

[40 C.F.R. 63.764(e)(1)(ii), Subpart HH]

41. **NESHAP Subpart HH Monitoring.** The Permittee shall use the following procedures to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

[18 AAC 50.040(c)(13), (j)(4) & 50.326(j)]

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

[40 C.F.R. 63.772(b)(1) & (2), Subpart HH]

- 41.1. Determine the actual flow rate of natural gas to EU ID 27 as follows:

- a. Install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. Convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.
- b. Document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

[40 C.F.R. 63.772(b)(1)(i) & (ii), Subpart HH]

- 41.2. Determine actual average benzene or BTEX emissions from EU ID 27 using the procedures of either Conditions 41.2.a or 41.2.b, either uncontrolled, or with federally enforceable controls in place, as follows:

- a. Determine actual average benzene or BTEX emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or
- b. Determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in 40 C.F.R. 63.772(a)(1)(i) or (ii), or an alternative method according to 40 C.F.R. 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year

[40 C.F.R. 63.772(b)(2)(i) & (ii), Subpart HH]

42. NESHAP Subpart HH Recordkeeping Requirements. The Permittee shall keep records as follows:

[18 AAC 50.040(c)(13), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[40 C.F.R. 63.774(b), (d), (f) & (g), Subpart HH]

- 42.1. Maintain files of all information (including all reports and notifications) required by NESHAP Subpart HH and the associated records specified in 40 C.F.R. 63.10(b)(2) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period, in such a manner that they can be readily accessed.

[40 C.F.R. 63.774(b)(1)(i) & (2), Subpart HH]

- 42.2. The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request; the remaining 4 years of records may be retained offsite.

[40 C.F.R. 63.774(b)(1)(ii) & (iii), Subpart HH]

- 42.3. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

[40 C.F.R. 63.774(b)(1)(iv), Subpart HH]

- 42.4. If EU ID 27 meets the exemption criteria in Condition 40.2.a or 40.2.b, the Permittee shall maintain the records specified in Condition 42.4.a or 42.4.b, as appropriate.

- a. The actual annual average natural gas throughput (in terms of natural gas flow rate to the glycol dehydration unit per day) as determined in accordance with Condition 41, or
- b. The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with Condition 41.1.

[40 C.F.R. 63.774(d)(1)(i) & (ii), Subpart HH]

- 42.5. The Permittee must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with Condition 40.1 or 40.1.a, as applicable.

[40 C.F.R. 63.774(f), Subpart HH]

- 42.6. For EU ID 27, the Permittee shall maintain records of the following:

- a. occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control equipment and monitoring equipment;
- b. actions taken during periods of malfunction to minimize emissions in accordance with Condition 39.2; and
- c. corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 C.F.R. 63.774(g), Subpart HH]

43. NESHAP Subpart HH Reporting Requirements. The Permittee shall report as follows:

[18 AAC 50.040(c)(13), (j)(4) & 50.326(j)]

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

[40 C.F.R. 63.775(f) & (g), Subpart HH]

- 43.1. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the Permittee shall submit a report within 180 days after the process change is made. The report shall include:

- a. A brief description of the process change;
- b. A description of any modification to standard procedures or quality assurance procedures;
- c. Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of 40 C.F.R. 63.775; and
- d. Information required by the Notification of Compliance Status Report under paragraph (d) of 40 C.F.R. 63.775 for changes involving the addition of processes or equipment.

[40 C.F.R. 63.775(f)(1) through (4), Subpart HH]

- 43.2. Send all reports required by NESHAP Subpart HH to the Administrator at the appropriate address listed in 40 C.F.R. 63.13. Reports may be submitted on electronic media. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy).

[40 C.F.R. 63.764(b) and 63.775(g)(2), Subpart HH]

NESHAP Subpart ZZZZ²² – Stationary RICE, EU IDs 7 through 18

44. NESHAPs Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for existing²³ (EU IDs 7 through 15, 17, and 18) and new²⁴ (EU ID 16) stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

44.1. For EU IDs 7 through 15, 17, and 18, existing stationary RICE units, the Permittee shall at all times comply with Conditions 45 through 48.

44.2. For EU ID 16, new stationary RICE units, the Permittee shall meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart III in Conditions 31 through 37. No further requirements apply for such engines under 40 C.F.R. 63.

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

40 C.F.R. 71.6((a)(1)

[40 C.F.R. 63.6585(c), 63.6590(a)(1)(iii), & (c)(i), and 63.6605(a), Subpart ZZZZ]

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

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

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

45.1. At all times, operate and maintain EU IDs 7 through 15, 17, and 18, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 7 through 15, 17, and 18.

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

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

- a. the manufacturer's emission-related written instructions for operation and maintenance; or

²² The provisions of NESHAP Subpart ZZZZ listed in Conditions 38 through 47 are current as amended through February 27, 2014. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

²³ In accordance with 40 C.F.R. 63.6590(a)(1)(iii), a stationary RICE located at an area source of HAP emissions is *existing* if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

²⁴ In accordance with 40 C.F.R. 63.6590(a)(2)(iii), a stationary RICE located at an area source of HAP emissions is *new* if you commenced construction of the stationary RICE on or after June 12, 2006.

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

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

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

[40 C.F.R. 63.6625(h), Subpart ZZZZ]

46. NESHAP Subpart ZZZZ Work and Management Practices Standards and Monitoring.
For EU IDs 7 through 15, 17, and 18, the Permittee shall comply with the following work and management practices and monitoring requirements:

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

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

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

[Table 2d and Table 6, Subpart ZZZZ]

- 46.1. For EU IDs 14, 15, 17, and 18 (non-emergency, non-black start CI stationary RICE ≤ 300 Hp):

- a. Except during periods of startup, the Permittee shall meet the following requirements:

- (i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7;
- (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

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

- 46.2. For EU IDs 7 through 12 (non-emergency, non-black start 4SRB stationary RICE ≤ 500 Hp):

- a. Except during periods of startup, the Permittee shall meet the following requirements:

- (i) Change oil and filter every 1,440 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7²⁵;

²⁵ Although the latest amendment (February 27, 2014) to 40 C.F.R. 63.6625(j) does not reference item 10 (non-emergency, non-black start 4SRB stationary RICE ≤ 500 Hp) of Table 2d, review of the rule history indicates that this RICE category should have been included in the requirements specified in 40 C.F.R. 63.6625(j) for SI engines that utilize the option to conduct an oil analysis program. [Ref.: August 20, 2010 and January 30, 2013 40 C.F.R. 63 Subpart ZZZZ Rules and Regulations amendments]

- (ii) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
- (iii) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

[Table 2d (item 10 & Footnote 1), Subpart ZZZZ]

46.3. For EU ID 13 (non-emergency, non-black start 4SRB remote stationary RICE >500 Hp):

- a. Except during periods of startup, the Permittee shall meet the following requirements:
 - (i) Change oil and filter every 2,160 hours of operation or annually, whichever comes first, except as allowed by Condition 46.7;
 - (ii) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
 - (iii) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.

[Table 2d (item 11 & Footnote 1), Subpart ZZZZ]

46.4. For EU ID 13, which meets the definition of remote stationary RICE in 40 C.F.R. 63.6675 as of October 19, 2013, the Permittee must evaluate the status of the stationary RICE every 12 months. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in 40 C.F.R. 63.6675, the Permittee must comply with all of the requirements for existing non-emergency 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[40 C.F.R. 63.6603(f), Subpart ZZZZ]

46.5. During periods of startup, the Permittee shall comply with Condition 45.3.

[Table 2d, Subpart ZZZZ]

46.6. Demonstrate continuous compliance with the requirements in Conditions 46.1 through 46.3 by complying with Condition 45.2.

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

46.7. The Permittee has the option to utilize an oil analysis program in order to extend the specified oil change requirements in Condition 46.1.a(i), 46.2.a(i), and 46.3.a(i), as described below:

- a. The oil analysis must be performed at the same frequency specified for changing the oil in Conditions 46.1.a(i), 46.2.a(i), and 46.3.a(i).

- b. The analysis program must, at a minimum, analyze the following parameters: Total Base Number (for CI engines), Total Acid Number (for SI engines), viscosity, and percent water content. The condemning limits for these parameters are as follows:
 - (i) For EUIDs 14, 15, 17, and 18, Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
 - (ii) For EU IDs 7 through 13, Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;
 - (iii) For EUIDs 7 through 15, 17, and 18, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
 - (iv) For EUIDs 7 through 15, 17, and 18, percent water content (by volume) is greater than 0.5.
- c. If all of the condemning limits in Conditions 46.7.b(i) through 46.7.b(iv) are not exceeded, the Permittee is not required to change the oil.
- d. If any of the limits in Conditions 46.7.b(i) through 46.7.b(iv) is exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis.
 - (i) If the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later.
- e. The analysis program must be part of the maintenance plan for the engine.

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

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

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

47.1. If electing to operate and maintain EU IDs 7 through 15, 17, and 18 according to a maintenance plan developed by the Permittee as allowed under Condition 45.2.b, keep records of the maintenance conducted on EU IDs 7 through 15, 17, and 18 in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to the maintenance plan.

[40 C.F.R. 63.6655(e)(3), Subpart ZZZZ]

47.2. If electing to utilize the oil analysis program described in Condition 46.7, keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine.

[40 C.F.R. 63.6625(i) & (j), Subpart ZZZZ]

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

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

- 47.4. For EU ID 13, the Permittee must keep records of the initial and annual evaluation of the status of the engine with regard to EU ID 13 meeting the definition of remote stationary RICE in 40 C.F.R. 63.6675.

[40 C.F.R. 63.6603(f), Subpart ZZZZ]

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

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

- 48.1. Include in the operating report required by Condition 82 a report of all deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 to Subpart ZZZZ) was not met.

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

- 48.2. Notify the Department in accordance with Condition 81 if any of the requirements in Conditions 38 through 48 were not met.

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

40 C.F.R. Part 61 NESHAP

Subpart A (General Provisions) and Subpart M (Asbestos)

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

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

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

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

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

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

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

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

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

40 C.F.R. 63 NESHAP Applicability Determinations

53. 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).

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

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

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

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

Section 5. General Conditions

Standard Terms and Conditions

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

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

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

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

- 56.** The permit does not convey any property rights of any sort, nor any exclusive privilege.

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

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

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

- 58. 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 50.410.²⁶ 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 greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

58.1. the stationary source's assessable potential to emit of 860 TPY; or

58.2. 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; or
- d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

²⁶ If the stationary source has not commenced construction or operation on or before March 31st, submit to the Department's Anchorage office a transmittal letter certified under 18 AAC 50.205 that identifies the source's assessable emissions for the previous fiscal year to be zero tons per year and provide estimates for when construction and operation will commence.

[18 AAC 50.040(j)(3), 50.035, 50.326(j)(1) & (3), 50.346(b)(1), 50.410, and 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

59. Assessable Emission Estimates. Emission fees will be assessed as follows:

- 59.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions via the Department's Air Online Services (AOS) System at <http://dec.alaska.gov/applications/air/airtoolsweb> using the Permittee Portal option and filling out the Emission Fee Estimate form. Alternatively, the report may be submitted by:
- a. E-mail under a cover letter using dec.aq.airreports@alaska.gov; or
 - b. hard copy to the following address: ADEC Air Permits Program, ATTN: Assessable Emissions Estimate, 555 Cordova Street, Anchorage, Alaska 99501.
- 59.2. The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.
- 59.3. 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 58.1.
[18 AAC 50.040(j)(3), 50.326(j)(1), 50.346(b)(1), 50.410, and 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

60. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 2, 19 and K1 through K7:

- 60.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 60.2. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- 60.3. keep a copy of either the manufacturer's or the operator's maintenance procedures.
[18 AAC 50.326(j)(3) and 50.346(b)(5)]

61. 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)]

62. 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. 326(j)(3), and 50.346(c)]

- 62.1. 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 62.1.a or to address the results of Department inspections that found potential problems; and
 - (ii) to prevent future dust problems.

62.2. The Permittee shall report according to Conditions 64.1.e and 64.1.f.

63. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a stationary source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

[18 AAC 50.055(g)]

64. 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, 50.326(j)(3), and 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

64.1. Monitoring, Recordkeeping, and Reporting:

- a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 81.
- 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 64.
- c. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
 - (i) after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 64; or
 - (ii) the Department notifies the Permittee that it has found a violation of Condition 64.
- d. The Permittee shall keep records of
 - (i) the date, time, and nature of all emissions complaints received;
 - (ii) the name of the person or persons that complained, if known;

- (iii) a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 64; and
 - (iv) any corrective actions taken or planned for complaints attributable to emissions from the stationary source.
- e. With each stationary source operating report under Condition 82, the Permittee shall include a brief summary report which must include
- (i) the number of complaints received;
 - (ii) the number of times the Permittee or the Department found corrective action necessary;
 - (iii) the number of times action was taken on a complaint within 24 hours; and
 - (iv) the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.
- f. 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.

65. Technology-Based Emission Standard. If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or non-routine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard²⁷ listed in Conditions 27, 29, or 50 (refrigerants), the Permittee shall

- 65.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and
- 65.2. report in accordance with Condition 81.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken.

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

Open Burning Requirements

66. Open Burning. The Permittee shall not conduct open burning at the stationary source.

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

²⁷ As defined in 18 AAC 50.990(106), the term “*technology-based emission standard*” means a best available control technology (BACT) standard; a lowest achievable emission rate (LAER) standard; a maximum achievable control technology (MACT) standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 6. General Source Testing and Monitoring Requirements

- 67. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
[18 AAC 50.220(a) and 50.345(a) & (k)]
- 68. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
[18 AAC 50.220(b)]
- 68.1. at a point or points that characterize the actual discharge into the ambient air; and
- 68.2. at the maximum rated burning or operating capacity of the emissions unit or another rate determined by the Department to characterize the actual discharge into the ambient air.
- 69. Reference Test Methods.** The Permittee shall use the following test methods when conducting source testing for compliance with this permit:
- 69.1. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.
[18 AAC 50.220(c)(1)(A) and 50.040(a)]
[40 C.F.R. 60]
- 69.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.
[18 AAC 50.040(c) and 50.220(c)(1)(C)]
[40 C.F.R. 63]
- 69.3. Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9. The Permittee may use the form in Section 11 to record data.
[18 AAC 50.030 and 50.220(c)(1)(D)]
- 69.4. Source testing for emissions of PM_{2.5} and PM₁₀, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
[18 AAC 50.040(a)(3) and 50.220(c)(1)(E)]
[40 C.F.R. 60, Appendix A]
- 69.5. Source testing for emissions of PM₁₀ and PM_{2.5} must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.
[18 AAC 50.035(b)(2) and 50.220(c)(1)(F)]
[40 C.F.R. 51, Appendix M]

69.6. 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)(24) and 50.220(c)(2)]
[40 C.F.R. 63, Appendix A, Method 301]

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

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

71. Test Exemption. The Permittee is not required to comply with Conditions 73, 74 and 75 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.2).

[18 AAC 50.345(a)]

72. 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)]

73. Test Plans. Except as provided in Condition 71, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 67 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)]

74. Test Notification. Except as provided in Condition 71, 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)]

75. Test Reports. Except as provided in Condition 71, 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 78. 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)]

76. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 17.2, 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

77. 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) and 50.326(j)]
[40 C.F.R 60.7(f), Subpart A and 40 C.F.R 71.6(a)(3)(ii)(B)]

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

77.2. 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

78. 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.

78.1. 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 09.80.020 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 78.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.205, 50.326(j), and 50.345(a) & (j)]

79. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall submit one certified copy of reports, compliance certifications, and/or other submittals required by this permit. The Permittee may submit the documents by hard copy or electronically, as follows:

79.1. Submit hard copy to the following address: ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.

79.2. Provide electronic submittals either by:

- a. using the Department's Air Online Services (AOS) system at <http://dec.alaska.gov/applications/air/airtoolsweb/> using the Permittee Portal option; or
- b. an email, under a cover letter, addressed to dec.aq.airreports@alaska.gov.

[18 AAC 50.326(j)(3)]

80. 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, and 50.326(a) & (j)]
[40 C.F.R. 71.5(a)(2) and 71.6(a)(3)]

81. Excess Emissions and Permit Deviation Reports.

81.1. Except as provided in Condition 64, 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 commences 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; and
- c. Report all other excess emissions and permit deviations
 - (i) within 30 days after the end of the month in which the excess emissions or deviation occurred, except as provided in Conditions 81.1.c(ii) and 81.1.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 81.1.c(i); and
- (iii) for failure to monitor, as required in Conditions 4.2.b and 9.1.b.

81.2. When reporting excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at <http://dec.alaska.gov/applications/air/airtoolsweb> using the Permittee Portal option, 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.

81.3. 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), and 50.346(b)(2) & (3)]

82. Operating Reports. During the life of this permit²⁸, the Permittee shall submit to the Department an original and one copy of 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.

82.1. 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.

82.2. If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 82.1,

a. The Permittee shall identify

- (i) the date of the deviation;
- (ii) the equipment involved;
- (iii) the permit condition affected;
- (iv) a description of the excess emissions or permit deviation; and
- (v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under Condition 81 the Permittee shall cite the date or dates of those reports.

82.3. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.2.e and 28.1.a(ii), which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report:

²⁸ *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.

- 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.

82.4. **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) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

83. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 79.

83.1. 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.

83.2. **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.

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

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

84. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH₃, NO_x, PM₁₀, PM_{2.5}, SO₂, VOCs and Lead (Pb) (and lead compounds) for the previous calendar year using the form in Section 14 of this permit, as follows:

84.1. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

- a. 250 TPY of NH₃, PM₁₀, PM_{2.5} or VOCs; or

- b. 2,500 TPY of CO, NO_x or SO₂.
- 84.2. Every third year by April 30, if the stationary source's potential to emit for the previous calendar year (except actual emissions for Pb) equals or exceeds:
- a. 0.5 TPY of actual Pb, or
 - b. 1,000 TPY of CO; or
 - c. 100 TPY of SO₂, NH₃, PM₁₀, PM_{2.5}, NO_x or VOCs.
- 84.3. For reporting under Condition 84.2, the Permittee shall report in 2021 for calendar year 2020, 2024 for calendar year 2023, etc., in accordance with the Environmental Protection Agency schedule.
- 84.4. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Tables 2a and 2b of Appendix A to Subpart A of 40 C.F.R. 51 for each stack associated with an emissions unit.

[18 AAC 50.040(j)(4), 50.200, and 50.346(b)(8) & (9)]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1), and 40 C.F.R. 51, Appendix A to Subpart A]

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

- 85.1. **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 82 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
- 85.2. **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) and 50.040(j)]
[40 C.F.R. 60.13, Subpart A; 63.10(d) & (f), Subpart A; and 40 C.F.R. 71.6(c)(6)]

Section 8. Permit Changes and Renewal

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

- 86.1. 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;
- 86.2. The information shall be submitted to the Part 70 Operating Permit Program, US EPA – Region 10, Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188;
- 86.3. 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
- 86.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

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

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

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

88. 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:

- 88.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 88.2. 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;
- 88.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f); and
- 88.4. The Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

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

89. Operational Flexibility. The Permittee may make Section 502(b)(10)²⁹ 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).

89.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.

89.2. 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.

89.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 89.

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

90. Permit Renewal. To renew this permit, the Permittee shall submit to the Department³⁰ an application under 18 AAC 50.326 no sooner than **October 29, 2023** and no later than **October 29, 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) and 50.326(c)(2) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) and 71.7(b) & (c)(1)(ii)]

²⁹ 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.

³⁰ Submit permit applications to the Department's Anchorage office. The current address is: Air Permit Intake Clerk, ADEC, 555 Cordova Street, Anchorage, AK 99501.

Section 9. Compliance Requirements

General Compliance Requirements

- 91.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 91.1. included and specifically identified in the permit; or
 - 91.2. determined in writing in the permit to be inapplicable.
- [18 AAC 50.326(j)(3) and 50.345(a) & (b)]
- 92.** The Permittee must comply with each permit term and condition. 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
- 92.1. an enforcement action;
 - 92.2. permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
 - 92.3. denial of an operating permit renewal application.
- [18 AAC 50.040(j), 50.326(j), and 50.345(a) & (c)]
- 93.** For applicable requirements with which the stationary source is in compliance, the Permittee shall continue to comply with such requirements.
- [18 AAC 50.040(j)(3) & (4) and 50.326(j)]
[40 C.F.R. 71.6(c)(3) and 71.5(c)(8)(iii)(A)]
- 94.** 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)(3) & (4) and 50.326(j)]
[40 C.F.R. 71.6(c)(3) and 71.5(c)(8)(iii)(B)]
- 95.** 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)]
- 96.** 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
- 96.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
 - 96.2. have access to and copy any records required by the permit;
 - 96.3. inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

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

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

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

97.2. 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)]

98. Table C identifies the emissions units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table C becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

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

Table C - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Stationary source-wide	40 C.F.R. 60, Subparts D, Db, Dc, E, CCCC, DDDD, EEEE, FFFF	No affected EUs within the permitted stationary source.
	40 C.F.R. 63 Subpart HHH	This stationary source is not a “major source” of HAPs as defined in 40 C.F.R. 63.1271.
	40 C.F.R. 82.30, Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
	18 AAC 50.055(b)(3) – PM emissions standard for industrial process in operation before July 1, 1972	No affected EUs within the permitted stationary source.
Nonroad (mobile) internal combustion engines	18 AAC 50.055(a)(1), (b)(1) & (c) – Fuel-Burning Equipment Emission Standards; Visible Emissions, PM, and Sulfur Compound emission standards	Nonroad (mobile) internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Diesel storage tanks	40 C.F.R. 60 Subparts K, Ka, and Kb	Permittee did not commence construction, modification, or reconstruction of any tanks in these categories after June 11, 1973. In the event that any of these emissions units is modified or reconstructed as defined in 40 C.F.R. 60 during the term of this permit, and become subject to the requirements of 40 C.F.R. 60, Subpart Kb, this permit shield becomes null and void. The Permittee is required to notify the Department prior to reconstructing or modifying any of these emissions units.
2	40 C.F.R. 60 Subpart GG, Standards of Performance for Stationary Gas Turbines	EU IDs 2 was not constructed, modified, or reconstructed after October 3, 1977.
3, 4, and 5	40 C.F.R. 60 Subpart GG, §§60.334(a), (b), (d), & (g) §§60.334(e) & (f)	EU IDs 3, 4, and 5 do not use continuous emissions monitoring system (CEMS) or water/steam injection. EU IDs 3, 4, and 5 commenced construction before July 8, 2004.
3, 4, and 5	40 C.F.R. 60 Subpart GG, §60.334(h)(2)	No fuel bound nitrogen allowance is claimed for EU ID 3, 4, and 5 so nitrogen content of the fuel does not have to be monitored.
2, 3, 4, and 5	40 C.F.R. 60 Subpart KKKK, Standards for Performance for Stationary Combustion Turbines	EU IDs 2, 3, 4, and 5 were not constructed after February 18, 2005 and have not been modified or reconstructed thereafter. The permit shield for Subpart KKKK only applies to these units until modified, reconstructed or replaced. The Permittee is required to notify the Department prior to reconstructing or modifying of these EUs.
2, 3, 4, and 5	40 C.F.R. 63 Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	Anna Platform is not a Major Source of HAP Emissions.
14, 15, 17, and 18	40 C.F.R. 60 Subpart IIII	EU IDs 14, 15, 17, and 18 are exempt from the requirements of 40 C.F.R. 60 Subpart IIII because they commenced construction, modification, or reconstruction prior to the applicability date of July 11, 2005. The permit shield for Subpart IIII only applies to currently installed units until modified, reconstructed or replaced.
16	40 C.F.R. 60 Subpart IIII, §§60.4204(b) and (c), 60.4205(b) – (e), 60.4207, 60.4209(a) & (b), 60.4211(c) and (d), 60.4213, 60.4214	This replacement engine, EU ID 16, has a displacement less than 10 liters per cylinder, was manufactured after April 1, 2006 but before the 2007 model year, is not required to conduct performance test, is a certified engine, is not a fire pump engine or an emergency engine and is not equipped with a particulate filter, and is located in an area of Alaska not accessible by the FAHS.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
7 through 13	40 C.F.R. 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	EU IDs 7 through 13 did not commence construction after June 12, 2006 and have not been modified or reconstructed thereafter. The permit shield for Subpart JJJJ only applies to these units until modified, reconstructed or replaced. The Permittee is required to notify the Department prior to reconstructing or modifying of these EUs.
7 through 15, 17, and 18	40 C.F.R. Part 63 Subpart ZZZZ, §§63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(d), 63.6645(b)-(f), Operating limits under Table 2b per 63.6603(a)	Anna Platform is not a major source of HAPs emissions. EU IDs 7 through 15, 17, and 18 are not subject to any numerical emission standards.
7 through 13	40 C.F.R. Part 63 Subpart ZZZZ, §§63.6612, 63.6615, 63.6620, 63.6625(a)-(c), (f), 63.6630, 63.6635, 63.6640(f), 63.6645(g), (h), 63.6650(a)-(e), (g), &-(h), 63.6655(a)-(c), (f)	EU IDs 7 through 13 are not emergency engines, are subject only to management practices and need not perform monitoring or performance tests, nor use CEMS, or CPMS. Anna platform will not use landfill/digester gas.
14, 15, 17, and 18	40 C.F.R. Part 63 Subpart ZZZZ, §§63.6604(a)-(c), 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	Anna Platform is not accessible by the FAHS. Per §63.6603(b), EU IDs 14, 15, 17, and 18 are not subject to numerical CO emission limitations but must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d.
14, 15, 17, and 18	40 C.F.R. Part 63 Subpart ZZZZ, §§63.6625(a)-(d), (f), 63.6640(f), 63.6650(g), (h), 63.6655(b), (c), (f)	Anna Platform does not use CEMS, CPMS, landfill/digester gas, and EU IDs 14, 15, 17, and 18 are not classified as emergency CI RICE.
27	40 C.F.R. 63 Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities §§63.764(c) and (f)	The non-applicability of 63.764 (all except 63.764(a), (b), and (j)) is indicated under 63.764(d) and 63.764(e)(1). Anna Platform is not a major source of HAPs.
	§§63.765, 63.771, 63.772(d) - (i), 63.773, 63.774(c), (e), (h), and (i), and 63.775(b) - (e)	The non-applicability is indicated under 63.764(d) and (e)(1). Anna Platform is not a major source of HAP emissions and is not within an UA plus offset and UC boundary; therefore, not subject to the control requirements for glycol dehydration unit process vents.
	§63.764(i), 63.766 & 63.769, 63.772(a) and (c)	Per 40 C.F.R. 63.760(b)(2), the only affected EUs at area sources are the TEG dehydration unit and do not include the storage vessels or ancillary equipment and compressors subject to equipment leak standards.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
K6 and K7	40 C.F.R. 63 Subpart JJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	EU IDs K6 and K7 meet the definition of temporary boiler under §63.11237 and are exempt from the requirements of Subpart JJJJJ under 40 C.F.R. 63.11195(h). These boilers must continue to meet the definition of temporary boiler in 40 C.F.R. 63.11237, otherwise the requirements of Subpart JJJJJ become applicable.

Section 11. Visible Emissions Forms

VISIBLE EMISSIONS OBSERVATION FORM

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

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

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION AIR PERMITS PROGRAM - VISIBLE EMISSIONS OBSERVATION FORM							Page No. _____				
Stationary Source Name		Type of Emission Unit		Observation Date		Start Time		End Time			
Emission Unit Location				Sec	0	15	30	45	Comments		
				Min							
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			Direction From Observer								
Start		End		Start		End					
Describe Emissions & Color											
Start		End									
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read											
No		Yes									
Point in Plume at Which Opacity Was Determined											
Describe Plume Background			Background Color								
Start		End		Start		End					
End				End							
Sky Conditions:											
Start		End									
Wind Speed		Wind Direction From									
Start		End		Start		End					
Ambient Temperature		Wet Bulb Temp		RH percent							
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From 3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks											
				Additional Information:							
				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%:				Highest 18-Consecutive-Minute Average Opacity (%)(engines and turbines only)							
In compliance with six-minute opacity limit? (Yes or No)											
Average Opacity Summary:											
Set Number		Time		Opacity		Comments					
		Start	End	Sum	Average						

Section 12. Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75 wt% S_{fuel} , calculate the three-hour exhaust concentration of SO_2 using the following equations:

A. $= 31,200 \times [wt\%S_{fuel}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

B. $= 0.148 \times [wt\%S_{fuel}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

C. $= 0.396 \times [wt\%C_{fuel}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

D. $= 0.933 \times [wt\%H_{fuel}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

E. $= B + C + D = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

F. $= 21 - [vol\%_{dry}O_2, \text{ exhaust}] = 21 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

G. $= [vol\%_{dry}O_2, \text{ exhaust}] \div F = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

H. $= 1 + G = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

I. $= E \times H = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

SO_2 concentration $= A \div I = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ 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 14.1. The fuel weight percent's of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol% $_{dry}O_2, \text{ exhaust}$) is obtained from oxygen meters, manufacturer's data, or from the most recent ORSAT analysis 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% $_{dry}O_2, \text{ exhaust} = 3.00\%$, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13. ADEC Notification Form³¹

Anna Platform

Stationary Source Name

AQ0062TVP04

Air Quality Permit Number

Hilcorp Alaska, LLC

Company Name

When did you discover the Excess Emissions/Permit Deviation?

Date: ____ / ____ / ____

Time: ____ : / ____

When did the event/deviation occur?

Begin: Date: ____ / ____ / ____

Time: ____ : ____ (please use 24-hr clock.)

End: Date: ____ / ____ / ____

Time: ____ : ____ (please use 24-hr clock.)

What was the duration of the event/deviation? ____ : ____ (hrs:min) or ____ days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

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

- Excess Emissions – Complete Section 1 and Certify
- 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.

³¹ Revised as of September 27, 2010.

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

Identify the emissions 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

(e) **Type of Incident** (please check only one):

- Opacity _____ % Venting _____ gas/scf Control Equipment Down
 Fugitive Emissions Emission Limit Exceeded Recordkeeping Failure
 Marine Vessel Opacity 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 only one box corresponding with the section in the permit):

- | | |
|---|--|
| <input type="checkbox"/> Emissions Unit-Specific | <input type="checkbox"/> Generally Applicable Requirements |
| <input type="checkbox"/> Failure to Monitor/Report | <input type="checkbox"/> Reporting/Monitoring for Diesel Engines |
| <input type="checkbox"/> General Source Test/Monitoring Requirements | <input type="checkbox"/> Insignificant Emissions Unit |
| <input type="checkbox"/> Recordkeeping/Reporting/Compliance Certification | <input type="checkbox"/> Stationary Source Wide |
| <input type="checkbox"/> Standard Conditions Not Included in the Permit | |
| <input type="checkbox"/> Other Section: _____ | (Title of section and section number of your permit). |

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

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

1. Department's Air Online Services using the Permittee Portal option:

<http://dec.alaska.gov/applications/air/airtoolsweb>

Or

2. Fax to: 907-451-2187

Or

3. Email to: DEC.AQ.Airreports@alaska.gov

Or

4. Mail ADEC
to: Air Permits Program
 610 University Avenue
 Fairbanks, AK 99709-3643

Or

5. Phone Notifications: 907-451-5173

Phone notifications require a written follow-up report.

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

A detailed instruction on completing and submitting the emission inventory form is available on the Department’s Air Online Services (AOS) system at <http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory> by selecting the “Emission Inventory Instructions” button. This form can also be completed online in the Department’s AOS system at <http://dec.alaska.gov/applications/air/airtoolsweb> and selecting the Permittee Portal option.

ADEC Reporting Form Emission Inventory Reporting State of Alaska Department of Environmental Conservation Division of Air Quality		Emission Inventory Year- [] Check one: Annual <input type="checkbox"/> Triennial <input type="checkbox"/>	
<u>Mandatory information is highlighted in bright yellow. Make additional copies as needed.</u>			
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			
Owner Address			
Owner contact number			
Mailing Contact Information	Address		
	City, State, Zip Code		
Line of Business (NAICS)			
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			
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	

Emission Operating Type					
Pollutant	Emission Factor (EF)	EF Numerator	EF Denominator	Emission Calculation Method	Tons
Carbon Monoxide (CO)					
Nitrogen Oxides (NO_x)					
PM₁₀ Primary (PM₁₀-PRI)					
PM_{2.5} Filterable (PM₂₅-FIL)³²					
PM Condensable (PM-CON)³³					
Sulfur Dioxide (SO₂)					
NH₃ (Ammonia)					
Lead and lead compounds					
Volatile Organic Compounds (VOC)					
Emissions' Release Point					
Release Point ID					
Apportion%					
Process	Secondary Process (if applicable)				
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:					

³² Report PM-2.5 filterable and PM condensable portions of the PM-2.5 Primary emissions, as applicable, in accordance with Federal Regulation 40 C.F.R. 51.15(a)(1)(vi). Refer to EPA's May 2017 "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations" (see Section 4.2.1) for guidance on the reporting of PM-2.5 filterable and condensable emissions.

³³ Please note on the inventory form if there is no available emission factor that can be used for an applicable condensable PM. For example, EPA AP-42 Table 3.3-1 does not contain a condensable PM emission factor for diesel engines smaller than 600 Hp.

Pollutant	Emission Factor (EF)	EF Numerator	EF Denominator	Emission Calculation Method	Tons
Carbon Monoxide (CO)					
Nitrogen Oxides (NO _x)					
PM ₁₀ Primary (PM ₁₀ -PRI)					
PM _{2.5} Primary (PM ₂₅ -PRI)					
Sulfur Dioxide (SO ₂)					
Lead and Lead Compounds					
NH ₃ (Ammonia)					
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). Read and sign the certification in the bottom of the form above. (See Condition 78.)*

Submit this report as follows:

1. Direct data entry for emission inventory can be done through the Department's Air Online Services (AOS) System <http://dec.alaska.gov/Applications/Air/airtoolsweb/> and clicking the Permittee Portal link. A myAlaska account is needed to gain access and a profile needs to be set up in Permittee Portal

OR

2. E-mail to: DEC.AQ.airreports@alaska.gov

OR

3. Mail to: ADEC
Air Permits Program
ATTN: Emissions Inventory
555 Cordova Street
Anchorage, Alaska 99501

OR

4. Fax this form to: 907-269-7508

If submitted online, the complete report must be submitted by an authorized E-Signer for the stationary source according to Condition 78.1.

[18 AAC 50.346(b)(9)]