DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0272TVP02 Issue Date: Final - February 1, 2012
Draft Revision 1: December 18, 2014 Expiration Date: Expires: February 1, 2017

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **BP Exploration (Alaska) Inc.**, for the operation of the **Lisburne Production Center**.

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

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

Citations listed herein are contained within 18 AAC 50 dated September 17, 2011, Register 199. All Federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

All currently applicable stationary source-specific terms and conditions of Operating/Construction Permit No. AQ0272TVP01 Revision 2 and Construction Permit No. 0073-AC061 have been incorporated into this operating permit**.** In addition, the stationary source-specific terms and conditions of Permit-to-Operate No. 9473-AA025 not amended by Operating/Construction Permit No. AQ0272TVP01 Revision 2 have been incorporated into this permit.

Upon effective date of this operating permit, Operating/Construction Permit No. AQ0272TVP01 Revision 2 expires, except that the construction permit terms identified by citation specific to Permit No. AQ0272TVP01 Revision 2 remain in effect until modified or replaced by a Title I permitting action under 18 AAC 50.

This operating permit became effective March 1, 2012

John F. Kuterbach, Manager
Air Permits Program

Table of Contents

List of Abbreviations Used in this Permit

AAC ..... Alaska Administrative Code
ADEC ..... Alaska Department of Environmental Conservation
AS ..... Alaska Statutes
ASTM ..... American Society for Testing and Materials
BACT ..... Best Available Control Technology
bbls ..... U.S. Petroleum Barrels (42 gallons)
bhp ..... brake horsepower
Btu ..... British Thermal Unit
CI ..... Compression Ignition
C.F.R. ..... Code of Federal Regulations
The Act ..... Clean Air Act
CO ..... Carbon Monoxide
CO_2 ..... Carbon Dioxide
CO_2e ..... CO_2 equivalent emissions
dscf ..... Dry standard cubic foot
EPA ..... US Environmental Protection Agency
EU ..... Emission Unit
GHG ..... Greenhouse Gas
HAPs ..... Hazardous Air Pollutants [HAPs as defined in AS 46.14.990(14)]
hp ..... Horsepower
H_2S ..... Hydrogen Sulfide
ICE ..... Internal Combustion Engine
ID ..... Emission Unit Identification Number
kPa ..... KiloPascals
kW ..... Kilowatt
kW-e ..... Kilowatt-electric[1]
LAER ..... Lowest Achievable Emission Rate
LHV ..... Lower Heating Value
MACT ..... Maximum Achievable Control Technology as defined in 40 C.F.R. 63
MMBtu ..... Million British Thermal Units
MMBtu/hr .. Million British Thermal Units per Hour
MMscf ..... Million Standard Cubic Feet
MMscf/hr ... Million Standard Cubic Feet per Hour
MR&R ..... Monitoring, Recordkeeping, and Reporting
NAICS ..... North American Industrial Classification System
NESHAPs .. Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
NG ..... Natural Gas
NGL ..... Natural Gas Liquids
NOx ..... Nitrogen Oxides
NSPS ..... Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
O_2 ..... Oxygen
PM-10 ..... Particulate Matter less than or equal to a nominal ten microns in diameter
ppm ..... Parts per million
ppmv ..... Parts per million by volume
ppmvd ..... Parts per million by volume dry basis
ppmw ..... Parts per million by weight
PS ..... Performance Specification
psia ..... Pounds per Square Inch (absolute)
PSD ..... Prevention of Significant Deterioration
PSI ..... Pounds per Square Inch (pressure)
PTE ..... Potential to Emit
RICE ..... Reciprocating Internal Combustion Engine
RM ..... Reference Method
RMP ..... Risk Management Plan
S ..... Sulfur
SIC. ..... Standard Industrial Classification
SO_2 ..... Sulfur dioxide
TPY ..... Tons per year
VOC ..... Volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
VOL ..... Volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]

[1] kW-e refers to rated generator electrical output rather than engine output

Section 1. Stationary Source Information

Identification

Names and Addresses

Permittee:	**BP Exploration (Alaska) Inc.** 900 East Benson Blvd. (zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	
Stationary Source Name:	**Lisburne Production Center**	
Location:	Section 19, T11N, R15E, Umiat Meridian	
Physical Address:	Prudhoe Bay, AK UTM Zone 6, 446100 E, 7798300 N	
Owners:	BP Exploration (Alaska) Inc. 900 East Benson Blvd. (zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	ConocoPhillips Alaska Inc. 700 G St. (zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360
	Chevron USA Inc. P.O. Box 36366 Houston, TX 77236	Exxon Mobil Alaska Production, Inc. 3301 C St., Ste. 400 (zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601
Operator:	BP Exploration (Alaska) Inc.	
Permittee's Responsible Official:	Mr. David Burgess East Area Operations Manager BP Exploration (Alaska) Inc.	
Designated Agent:	CT Corporation Systems 9360 Glacier Hwy., Suite 202 Juneau, AK 99801	
Permit and Fee Contact:	Gregory Arthur BP Exploration (Alaska) Inc. Gregory.Arthur@bp.com (907) 564-4081	
Stationary Source and Building Contact:	Mr. Rob Kruger or Mr. Robert Henry BP Exploration (Alaska) Inc. akopsgpmafacilityotl@bp.com (907) 659-8641	
Stationary Source Process Description — SIC	1311: Crude Oil and Natural Gas Production	
Stationary Source Process Description — NAICS	211111: Crude Petroleum and Natural Gas Extraction	

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

Section 2. Emission Unit Inventory and Description

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

Table A – Emission Unit Inventory

EU ID	Tag No.	Emission Unit Description	Rating/Size	Commenced Construction, Startup, or Modification / Reconstruction Date[1]
Group I - Gas Turbines at Production Pad				
1	42-1800	EGT (Ruston) TB 5000 STV/IP Compressor	4,900 hp ISO	5/24/87
2	42-1801	EGT (Ruston) TB 5000 STV/IP Compressor	4,900 hp ISO	12/18/86
3	42-1826	EGT (Ruston) TB 5000 Refrigeration Turbine	4,900 hp ISO	1/2/87
4	52-1807	GE MS 5382C Gas Injection Turbine	38,000 hp ISO	2001
5	52-1808	GE MS 5382C Gas Injection Turbine	38,000 hp ISO	2001
6	42-0101	Solar Mars Turbine Generator Set	12,000 hp ISO (8,840 kW ISO)	12/18/86
7	42-0102	Solar Mars Turbine Generator Set	12,000 hp ISO (8,840 kW ISO)	12/12/86
8	42-0103	Solar Mars Turbine Generator Set	12,000 hp ISO (8,840 kW ISO)	12/18/86
9	42-0114	Solar Mars Turbine Generator Set	12,000 hp ISO (8,840 kW ISO)	12/18/86
Group II - Gas Fired Heaters at Production Pad				
10	42-1411	BS&B TEG Reboiler	5.0 MMBtu/hr (heat input, LHV)	12/21/86
11	42-1412	BS&B TEG Reboiler	5.0 MMBtu/hr (heat input, LHV)	12/04/87
12	42-1400	ENTEC Process Heater (Standby Unit)	64.4 MMBtu/hr (heat input, LHV)	12/13/86
13	42-1403	ENTEC Utility Heater (Standby Unit)	36.3 MMBtu/hr (heat input, LHV)	12/19/86
14	42-1404	ENTEC Utility Heater (Standby Unit)	36.3 MMBtu/hr (heat input, LHV)	10/12/86
Group III - Gas Fired Heaters at Drill Sites				
15	41-1410	BS&B Drill Site Heater (LPC Drill Site 1)	25.5 MMBtu/hr (heat input, LHV)	11/27/86
16	41-1420	BS&B Drill Site Heater (LPC Drill Site 2)	25.5MMBtu/hr (heat input, LHV)	10/03/86
17	41-1430	BS&B Drill Site Heater (LPC Drill Site 3)	25.5 MMBtu/hr (heat input, LHV)	11/23/86
18	41-1440	BS&B Drill Site Heater (LPC Drill Site 4)	25.5 MMBtu/hr (heat input, LHV)	7/28/88
19	41-1450	BS&B Drill Site Heater (LPC Drill Site 5)	25.5 MMBtu/hr (heat input, LHV)	11/26/86

EU ID	Tag No.	Emission Unit Description	Rating/Size	Commenced Construction, Startup, or Modification / Reconstruction Date[1]
20	46-1460	BS&B Drill Site Heater (Pt. McIntyre Drill Site 1)	25.5 MMBtu/hr (heat input, LHV)	9/01/93
Group IV – Liquid Fuel Fired Equipment at Production Pad				
21	42-104 (LPC-EDE1)	GM EMD 20F4B Emergency Generator	4,000 hp (2,865 kW)	2/26/85
22	42-1529 (LPC-EDE2)	Caterpillar 3306T Emergency Fire Water Pump	231 hp	10/15/84
23	42-1589 (LPC-EDE3)	Caterpillar 3306T Emergency Fire Water Pump	231 hp	10/15/84
Group V – Liquid Fuel Fired Equipment at Drill Sites				
24	80-808 (L1-EDE6)	Caterpillar 3406 Emergency Generator (LPC Drill Site 1)	450 hp (300 kW)	1/83 (Reconstructed 9/05)
25	RENT 2	Caterpillar XQ400-C15 Emergency Generator (LPC Drill Site 2)	536 hp (400 kW)	2001 (installed 8/2011)
26	80-804 (L3-EDE8)	GM Detroit Allison Emergency Generator (LPC Drill Site 3)	382 hp (250 kW)	12/86
27	80-806 (L4-EDE9)	GM Detroit Allison Emergency Generator (LPC Drill Site 4)	382 hp (250 kW)	12/86
28	80-809 (L5-EDE10)	Detroit Diesel Model 12V71 Emergency Generator (LPC Drill Site 5)	402 hp (300 kW standby; 175 kW continuous	8/3/03[3]
29	80-891 (PM1-EDE4)	GM Detroit Allison Emergency Generator (Pt. McIntyre Drill Site 1)	1,377 hp (995 kW standby; 865 kW continuous	10/93
30	80-892 (PM2-EDE5)	GM Detroit Allison Emergency Generator (Pt. McIntyre Drill Site 2)	1,377 hp (865 kW)	6/94
31	80-859 (NIK-EDE11)	GM Detroit Allison Emergency Generator (Niakuk Drill Site 1)	912 hp (680 kW standby; 579 kW continuous	4/94
32	80-614	Caterpillar 3304 Emergency Generator (West Dock Staging Area)	200 hp (150 kW)	2/4/91
Group VI – Flares at Production Pad				
33	42-2802 (LPC-F1)	High Pressure Tertiary Emergency Flare	1.96 MMscf/day (pilot/purge) combined total for all flares	8/7/85
34	42-2803 (LPC-F1)	High Pressure Primary Emergency Flare		8/7/85
35	42-2804 (LPC-F1)	High Pressure Secondary Emergency Flare		8/7/85
36	42-2840 (LPC-F2)	Low Pressure Primary Emergency Flare		8/7/85
37	42-2841 (LPC-F2)	Low Pressure Secondary Emergency Flare		8/7/85
38	42-2842 (LPC-F3)	Liquid Pit Emergency Flare		8/7/85
Group VII – Fixed Roof Storage Tanks[5] (> 10,000-gallon capacity) at Production Pad				
41	42-1900	Slop Oil Tank	11,510 bbls[2]	1985

EU ID	Tag No.	Emission Unit Description	Rating/Size	Commenced Construction, Startup, or Modification / Reconstruction Date[1]
42	42-1920	Slop Oil Divert Tank	11,510 bbls[2]	1995
Group VIII – Natural Gas Processing Plant				
43	Modules and Skids[4]	NGL Plant	N/A	After 1/20/84

Table Notes:

(1) Date construction commenced (if known) or the startup date of the unit. If a unit has been modified or reconstructed as defined by AS 46.14.990, then the most recent modification or reconstruction date is provided.

(2) U.S. petroleum barrels (42 gallons per barrel

(3) Original equipment rated at 1,372 hp was installed November 1985. Therefore, this unit does not consume NO_2 increment.

(4) Specific stationary source modules and skids that contain equipment subject to 40 C.F.R. 60 Subpart KKK standards are: 42-4926, NGL Plant; 42-4930, Miscible Injection and MI Compressor Seal Gas System; and 42-4933, Point McIntyre EOR, Depropanizer Propane Chiller (42-1314).

(5) EU IDs 39 (126,840 gallon arctic heating fuel tank Tag No. 42-1909) and 40 (63,000 gallon MEG tank Tag No. 42-1926) were previously subject to recordkeeping requirements under NSPS Subpart Kb, but as of the 10/15/03 amendment to the subpart, the recordkeeping requirements no longer apply. Therefore, these tanks are no longer governed by any monitoring, record keeping, or reporting requirements and have been removed from Table A and from the permit.

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

Section 3. State Requirements

Visible Emissions Standards

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 – 38 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1 For EU IDs 1 – 20, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 82 indicating whether each of these emission units fired only gas during the period covered by the report. Report under Condition 81 if any fuel is burned other than gas.

1.2 For EU IDs 21, 29, and 30, monitor, record, and report in accordance with Conditions 2 through 4.

1.3 For each of EU IDs 22 – 28, 31, and 32, as long as the emission unit does not exceed the applicable rolling 12-month operating time limits in Conditions 14 and 15, monitoring shall consist of an annual compliance certification under Condition 83 with the visible emissions standard in accordance with Condition 24.4. Otherwise, monitor, record, and report in accordance with Conditions 2 through 4 for that emission unit for the remainder of the permit term.

1.4 For EU IDs 33 – 38, monitor, record, and report in accordance with Condition 5.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

For Liquid Fuel-Fired Emission Units (EU IDs 21 – 32)

2. Visible Emissions Monitoring. The Permittee shall observe the exhaust of liquid fuel-fired emission units, EU IDs 21, 29 and 30 and EU IDs 22 – 28, 31, and 32 (if required under Condition 1.3), for visible emissions using the Method 9 Plan under Condition 2.1. The Permittee may for each unit elect to continue the visible emission monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable. The Permittee shall state the intention of using this option in the first operating report required by Condition 82 submitted under the renewed permit.

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

2.1 **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations[2].

a. **First Method 9 Observation**.

(i) For any liquid fuel-fired unit listed in Condition 2 that is replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

(ii) For each existing emission unit that exceeds the operational threshold in Condition 1.3, observe the exhaust for 18 minutes of operations within 30 days after the calendar month during which that threshold has been exceeded, or within 30 days of the unit's next operations, whichever is later.

b. **Monthly Method 9 Observations.** After the first Method 9 observation required by Condition 2.1a, perform 18-minute observations at least once in each calendar month that an emission unit operates.

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

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

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

d. **Annual Method 9 Observations.** After at least two semiannual 18-minute observations under Condition 2.1c, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations:

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

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

[2] Emergency operations are exempt from the visible emissions observations deadlines associated with emission unit "operation" under this condition.

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

3. Visible Emissions Recordkeeping. When required by Condition 1.2, 1.3, or 22.2e, or in the event of replacement of any of EU IDs 21 – 32 during the permit term, the Permittee shall keep records as follows:

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

3.1 When using the Method 9 Plan of Condition 2.1, the observer shall record:

a. the name of the stationary source, emission unit, and location; emission unit type, observer's name, and affiliation; and the date on the Visible Emissions Field Data Sheet in Section 11;

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

c. 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;

d. opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record in Section 11; and

e. 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.

3.2 To determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet.

3.3 Calculate and record the highest six minute and 18-consecutive-minute averages observed.

4. Visible Emissions Reporting. When required by Condition 1.2, 1.3, or 22.2e, or in the event of replacement of any of EU IDs 21 – 32 during the permit term the Permittee shall report visible emissions as follows:

[18 AAC 50.040(j); 18 AAC 50.326(j); 18 AAC 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. copies of the observation results (i.e. opacity observations) for each unit that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and

b. a summary to include:

(i) number of days observations were made;

(ii) highest six-minute average observed; and

(iii) dates when one or more observed six-minute averages were greater than 20 percent under Condition 1 or 10 percent under Condition 22; and

c. a summary of any monitoring or recordkeeping required under Conditions 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-minute period under Condition 1 or an average 10 percent opacity for any six-minute period under Condition 22; and

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

For Flares (EU ID 33 – 38)

5. Visible Emissions Monitoring, Recordkeeping, and Reporting. The Permittee shall observe one daylight flare event[3] within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later. When flare events are intermittent (i.e. typically no more than once per year), then the Permittee shall observe the next daylight flare event immediately following 12-months after the preceding observation or immediately following 12 months after the permit effective date, whichever is later.

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;

[3] For purposes of this permit, a "flare event" is flaring of gas at a rate that exceeds the source's de minimis pilot, purge, and assist gas rates for a minimum of 18 consecutive minutes. It does not include non-scheduled release operations, i.e. process upsets, emergency flaring, or de-minimis venting of gas incidental to normal operations.

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

e. volume of gas flared.

5.3 Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. If more than 12 months have elapsed since the last qualifying flare event was monitored, and 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 that the flare event was not monitored. If no flare events meeting this definition occur during the elapsed period then no monitoring or reporting is required.

5.4 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.

5.5 Report under Condition 81 whenever the visible emission standard that applies to flares in Condition 1 or Condition 22 is exceeded or the monitoring required under Condition 5 is not completed.

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

Particulate Matter Emissions Standards

6. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 – 38 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

6.1 For EU IDs 1 – 20, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 82 indicating whether each of these emission units fired only gas during the period covered by the report. Report under Condition 81 if any fuel is burned other than gas.

6.2 For EU IDs 21, 29, and 30, monitor, record, and report in accordance with Conditions 7 through 8.

6.3 For each of EU IDs 22 – 28, 31, and 32, as long as the emission unit does not exceed the applicable rolling 12-month operating time limit in Conditions 14 and 15, monitoring shall consist of an annual compliance certification under Condition 83 with the particulate matter standard in accordance with Condition 24.4. Otherwise, monitor, record, and report in accordance with Conditions 7 through 8 for that emission unit for the remainder of the permit term.

6.4 For EU IDs 33 – 38, the Permittee must annually certify compliance under Condition 83 with the particulate matter standard.

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

Particulate Matter Monitoring, Recordkeeping and Reporting

For Liquid Fuel-Fired Engines (EU IDs 21 – 32)

7. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines, EU IDs 21, 29, and 30 and EU IDs 22 – 38, 31, and 32 (if required under Condition 6.3), to determine the concentration of particulate matter (PM) in the exhaust, as follows:

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

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

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

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

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

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

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

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

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

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

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

8.1 Report under Condition 81

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

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

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

8.2 In each operating report under Condition 82, include for the period covered by the report:

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

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

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

Sulfur Compound Emission Standards

9. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 – 38 to exceed 500 parts per million (ppm) averaged over three hours.

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

Sulfur Compound Emissions Monitoring, Recordkeeping and Reporting

Monitoring and Reporting for Fuel Gas[4]-Fired Emission Units (EU IDs 1 – 20 and 33 – 38)

9.1 To ensure compliance with Condition 9, the Permittee shall comply with the fuel gas limits required by Condition 10[5].

9.2 The Permittee shall analyze a representative sample of the fuel gas burned by emission units at the production center and of the fuel gas burned by each drill site heater (EU IDs 15 – 20) monthly to determine the sulfur content using either ASTM D4084, D5504, D6228, D4810, D4913, 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).

9.3 Keep records of the sulfur content analysis required under Condition 9.2.

9.4 The Permittee shall report as follows:

a. Report as excess emissions, in accordance with Condition 81, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9.

[4] *Fuel gas* as the term is used in the context of this condition is described generally by the definition of natural gas found in 40 C.F.R. 60.41b.

[5] Compliance with the gas fuel hydrogen sulfide limit of Condition 10 will assure compliance with the 500-ppm SO_2 emission limit of Condition 9.

b. Include copies of the records required by Condition 9.3 with the operating report required by Condition 82 for the period covered by the report.

[Construction Permit No. 0073-AC061, 2/21/01]
[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3)]

*Monitoring and Reporting for North Slope Liquid Fuel (*EU IDs 21 – 32*)*

9.5 To ensure compliance with Condition 9, the Permittee shall comply with the liquid fuel sulfur content limit as required by Condition 11[6].

9.6 For liquid fuel from a North Slope topping plant, the Permittee shall obtain from the topping plant the results of a monthly fuel sulfur analysis.

a. The Permittee shall include in the operating report required by Condition 82, a list of the sulfur content measured for each month covered by the report.

b. Report as excess emissions, in accordance with Condition 81, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9. When reporting under this condition, include the calculated SO_2 emissions in ppm using Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[Construction Permit No. 0073-AC061, 2/21/01]
[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j); 18 AAC 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

*Monitoring and Reporting for Other Fuel Oil[7] (*EU IDs 21 – 32*)*

9.7 To ensure compliance with Condition 9, the Permittee shall comply with the liquid fuel sulfur content limit as required by Condition 11[6].

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

a. If the fuel grade requires a sulfur content less than 0.50 percent by weight, keep receipts that specify the fuel grade, the maximum sulfur content and the amount received; or

b. If the fuel grade does not require a sulfur content less than 0.50 percent by weight, keep receipts that specify fuel grade and amount received, and

(i) test the fuel for sulfur content using 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); or

[6] Compliance with the fuel sulfur limit of Condition 11 will assure compliance with the 500-ppm SO_2 emission limit of Condition 9.

[7] *Oil* as the term is used in the context of this condition is described generally as 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.

(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.

9.9 The Permittee shall report as follows:

a. Report in each operating report required by Condition 82, all records obtained under Condition 9.8.

b. Report as excess emissions, in accordance with Condition 81, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9. When reporting under this condition, include the calculated SO_2 emissions in ppm using Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[Construction Permit No. 0073-AC061, 2/21/01]
[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)(4); 18 AAC 50.346(c)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Pre-Construction[8] Permit Requirements

ORLs to Avoid PSD Major Modification and Protect Ambient Air Quality

10. Fuel Gas H_2S Requirements. The hydrogen sulfide content of natural gas burned in EU IDs 1 – 14 and 33 – 38 shall not exceed 168 ppmv averaged over three consecutive hours, and for EU IDs 15 – 20 shall not exceed 600 ppmv averaged over three consecutive hours.

10.1 Fuel gas H_2S monitoring shall be conducted as required by Condition 9.2.

10.2 Whenever the H_2S concentration in the fuel gas burned by EU IDs 1 – 14, measured as required by Condition 9.2, exceeds 168 ppmv, the Permittee shall test the gas, as burned, hourly until the concentration of H_2S falls below 168 ppmv for 24 consecutive hours, at which time the Permittee may return to the monthly monitoring schedule specified by Condition 9.2.

10.3 Report in the operating report required by Condition 82:

a. The concentration of H_2S (in ppm) measured in the representative fuel gas for each month of the reporting period, and

b. Any change in the type of fuel and tests or analyses performed.

10.4 Report in accordance with Condition 81 any time the H_2S concentration in the fuel gas exceeds either of the limits in Condition 10.

[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]
[Construction Permit No. 0073-AC061, 2/21/01]
[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[Construction/Operating Permit No. AQ0272TVP01, Revision 2, 2/23/06]

[8] *Pre-Construction* refers to permits issued pursuant to regulations approved or promulgated through rulemaking under Title I of the Act, including State and Federal PSD permits and State-issued Permits-to-Operate (prior to January 17, 1997), construction permits issued effective January 17, 1997 or later, and minor permits issued effective October 1, 2004 or later.

11. Liquid Fuel Sulfur Requirements. The sulfur content of fuel oil burned in EU IDs 21 – 32 shall not exceed 0.15 percent by weight at any time.

11.1 Liquid fuel sulfur monitoring shall be conducted as required by Condition 9.6 or Condition 9.8.

11.2 Report the concentration of sulfur (in weight percent) measured in the representative liquid fuel for each month of the reporting period, and report any change in the type of fuel and tests or analyses performed, with the operating report required by Condition 82.

11.3 Report in accordance with Condition 81 whenever the sulfur content of fuel oil exceeds 0.15 percent by weight.

[Construction Permit No. 0073-AC061, 2/21/01]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

12. Firing Rate Requirements for EU IDs 10 – 20. The Permittee shall operate the heaters, EU IDs 10 – 20, at no more than 100% rated capacity.

12.1 The Permittee shall use the following equation to calculate actual firing rate (% of design capacity):

$$\%Capacity = \frac{Fuel(MMscf/month) * LHV(Btu/scf) / HoursofOperation(hours/month)}{MaxDesignHeatInputCapacity(MMBtu/hr)} * 100$$

Where: Fuel = Total Fuel Usage for unit during period (MMscf/month)

LHV = Fuel Lower Heating Value during period (Btu/scf)

Hours of Operation = Total Operating Hours for period (hours/month)

Max Design Heat Input Capacity = Unit's Maximum Rated Heat Input Capacity (MMBtu/hr)

12.2 Report in the operating report required by Condition 82, the firing rate calculated for each heater according to procedures defined in Condition 12.1 based on design capacity, fuel consumption, fuel heating value, and hours of operation for each month during the reporting period.

12.3 Record and report in accordance with Condition 81, whenever operation of the heaters exceeds the limit in Condition 12.

[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

13. Hour Limits for EU ID 21. The Permittee shall not operate EU ID 21 greater than 8 hours per day nor greater than 240 hours per rolling 12-month period.

13.1 Monitor and record the daily and rolling 12-month total hours of operation for EU ID 21.

13.2 For each month covered by the report, include the daily and rolling 12-month total hours of operation in the operating report required by Condition 82.

13.3 Notify the Department in accordance with Condition 81 if the hours of operation exceed any of the limits in Condition 13.

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[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

14. Hour Limits for EU IDs 22 and 23. The Permittee shall not operate EU IDs 22 and 23 greater than a combined total of 6 hours per day nor greater than 240 hours each per rolling 12-month period.

14.1 Monitor and record the daily cumulative and rolling 12-month total hours of operation for EU IDs 22 and 23.

14.2 For each month covered by the report, include the combined total for each day and the rolling 12-month individual total hours of operation in the operating report required by Condition 82.

14.3 Notify the Department in accordance with Condition 81 if the hours of operation exceed any of the limits in Condition 14.

[Construction Permit No. 0073-AC061, 2/21/01]
[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

15. Hourly Limits for EU IDs 24 – 32. The Permittee shall operate the emergency engines, EU IDs 24 – 32, no more than 140 hours each per rolling 12-month period.

15.1 Monitor and record the cumulative total hours of operation per rolling 12-month period for each of EU IDs 24 – 32.

15.2 For each month covered by the report, include the rolling 12-month total hours of operation for each of EU IDs 24 – 32 in the operating report required by Condition 82.

15.3 Notify the Department in accordance with Condition 81 if the cumulative hours of operation for any of EU IDs 24 – 32 exceed the limit in Condition 15.

[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

16. Stack Orientation Requirements. EU IDs 1 – 11 and 15 – 32 shall have vertical exhaust outlets with no fixed rain caps.

16.1 Once each calendar year, visually verify that each stack remains equipped with vertical outlets with no fixed rain cap.

16.2 The Permittee shall record the dates visual verifications were made and certify annually in the compliance report required by Condition 83, whether the stack outlets meet the requirement of Condition 16.

[Construction Permit No. 0073-AC061, 2/21/01]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

17. EU IDs 12 – 14. The Permittee shall not operate EU IDs 12 – 14 with fixed rain caps.

17.1 Anytime EU IDs 12, 13, and 14 are operated with fixed rain caps, record the date and time, and the circumstance that warranted operation of the unit.

17.2 For each month covered by the report, include total hours of operation with fixed rain caps for each of EU IDs 12, 13, and 14 in the operating report required by Condition 82.

17.3 Report in accordance with Condition 81 any time EU IDs 12, 13, or 14 are operated with fixed rain caps and identify the circumstances that required operation of the units.

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

18. Fuel Consumption Monitoring. The Permittee shall monitor the monthly fuel consumption for EU IDs 1 – 38 as emission unit group totals. Maintain and operate a monitoring device (e.g. fuel gas meter) to measure the total volume of fuel gas consumed by EU IDs 1 – 9, combined. For EU IDs 10 – 38 (heaters, liquid fuel-fired equipment, and flares) the total volume of fuel consumed by each emission unit group may be estimated.

18.1 Record the monthly fuel consumption for each fuel-fired emission unit group shown in Table A (Groups I through VI).

18.2 Submit copies of the records required by Condition 18.1 with the operating report required by Condition 82 for each month of the reporting period. Report the total quantity and type of fuel burned in each emission unit group (Groups I through VI of Table A), and the total quantity of fuel burned at the stationary source, MMscf per month for fuel gas-fired emission units and gallons per month for liquid fuel-fired emission units.

[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

19. Hourly Operations Monitoring. The Permittee shall monitor, record and report the hours of operation as follows:

[Permit to Operate No. 9473-AA025, Amendment 2, 1/13/97]

19.1 Monitor and record the monthly operating time for each of EU IDs 1 – 32.

19.2 Report using the operating report under Condition 82, the data recorded under Condition 19.1 for each month of the reporting period.

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

20. NO_X and CO PSD Avoidance Limits. The Permittee shall avoid classification as a Prevention of Significant Deterioration major modification for NO_X and CO as indicated in Table B below:

Table B – PSD Avoidance Limits

Pollutant	EU ID	Make/Model	Tag Number	Limit
NO_X	4 & 5	GE Turbines	52-1807 52-1808	79 ppmvd at 15% O_2, ISO
	6 – 9	Solar Mars Turbines	42-0101 42-0102 42-0103 42-0114	3,272 MMscf per 12-month rolling period, combined
	4 – 9	GE Turbines Solar Mars Turbines	52-1807 52-1808 42-0101 42-0102 42-0103 42-0114	1,808 tons per 12-month rolling period, expressed as NO_2, combined
CO	4 – 9	GE Turbines Solar Mars Turbines	52-1807 52-1808 42-0101 42-0102 42-0103 42-0114	366 tons per 12-month rolling period, combined

20.1 To ensure compliance with the NOx PSD avoidance limits, the Permittee shall:

a. Monitor and record the monthly average ambient temperature, hours of operation, and gas consumption for each of EU IDs 4 – 9.

b. Monitor, record, and report NO_X emission concentration for EU IDs 4 and 5, and cumulative total NO_X emissions for EU IDs 4 – 9 in accordance with Conditions 22.1 and 22.2.

c. Report in each operating report under Condition 82, the rolling 12-month total fuel gas consumption for EU IDs 6 – 9 (combined) for each month of the reporting period.

d. Report in accordance with Condition 81 whenever the limits in Table B are exceeded.

20.2 To ensure compliance with the CO PSD avoidance limits, the Permittee shall:

a. Monitor and record the monthly average ambient temperature, hours of operation, and gas consumption for each of EU IDs 4 – 9.

b. Monitor, record, and report cumulative total CO emissions for EU IDs 4 – 9 in accordance with Condition 22.1.

c. Report in accordance with Condition 81 whenever the limit in Table B is exceeded.

[Construction Permit No. 0073-AC061, 2/21/01]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Owner Requested Limit (ORL) to Establish Potential to Emit

21. EU IDs 41 and 42. The Permittee shall operate and maintain EU IDs 41 and 42 with a closed vent system and control device meeting the specifications of 40 C.F.R. 60.112b(a)(3).

21.1 Operate and maintain the closed vent system and control device for EU IDs 41 and 42 in accordance with the submitted 'Operating Plan for Divert and Slop Oil Tanks' plan as revised June 2002.

21.2 Keep records of the operating plan and the measured values of the parameters monitored in accordance with the operating plan.

21.3 Report in accordance with Condition 81 any time that the closed vent system and control device for EU IDs 41 and 42 are not operated in accordance with 40 C.F.R. 60.112b(a)(3).

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

Best Available Control Technology (BACT) Limits

22. Best Available Control Technology Limits. The Permittee shall limit actual emissions from EU IDs 1 – 20 and 33 – 37 as indicated in Table C below.

Table C – Turbine, Heater, and Flare BACT Limits

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Emission Unit	Annual Emission Limit (TPY)[1]
NO_X	1 – 3	Ruston Turbines	42-1800 42-1801 42-1826	117 ppmvd @ 15% O_2	274 (combined)
	4 & 5	GE Turbines	52-1807 52-1808	115 ppmvd @ 15% O_2	1,063 (combined)
	6 – 9	Solar Mars Turbines	42-0101 42-0102 42-0103 42-0114	152 ppmvd @ 15% O_2	745 (combined)
	10 & 11	BS&B Reboilers	42-1411 42-1412	0.16 lb/MMBtu	7 (combined)

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Emission Unit	Annual Emission Limit (TPY)[1]
	12 – 20	Entec Process Heater, Entec Utility Heaters, BS&B Drillsite Heaters	42-1400 42-1403 42-1404 41-1410 41-1420 41-1430 41-1440 41-1450 46-1460	0.08 lb/MMBtu	102 (combined)
CO	1 – 3	Ruston Turbines	42-1800 42-1801 42-1826	109 lb/MMscf fuel at 100% rated capacity corrected to ISO conditions	600 (combined)
	4 – 9	GE Turbines & Solar Mars Turbines	52-1807 52-1808 42-0101 42-0102 42-0103 42-0114	109 lb/MMscf fuel at 100% rated capacity corrected to ISO conditions	
	10 – 20	BS&B Reboilers, Entec Process Heater, Entec Utility Heaters, BS&B Drillsite Heaters	42-1411 42-1412 42-1400 42-1403 42-1404 41-1410 41-1420 41-1430 41-1440 41-1450 46-1460	0.018 lb/MMBtu	24 (combined)
SO_2	1 – 9	Ruston Turbines GE Turbines & Solar Mars Turbines	42-1800 42-1801 42-1826 52-1807 52-1808 42-0101 42-0102 42-0103 42-0114	168 ppmv H_2S in fuel gas, averaged over 3 consecutive hours	157 (combined)
	10 – 14	BS&B Reboilers, Entec Process Heater, Entec Utility Heaters	42-1411 42-1412 42-1400 42-1403 42-1404	168 ppmv H_2S in fuel gas, averaged over 3 consecutive hours	22 (combined)
	15 – 20	BS&B Drillsite Heaters	41-1410 41-1420 41-1430 41-1440 41-1450 46-1460	None	73 (combined)

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Emission Unit	Annual Emission Limit (TPY)[1]
PM-10	1 – 9	Turbines	42-1800 42-1801 42-1826 52-1807 52-1808 42-0101 42-0102 42-0103 42-0114	10% opacity, averaged over any six consecutive minutes	None
	33 – 37	Flares	42-2802 42-2803 42-2804 42-2840 42-2841	20% opacity, averaged over any six consecutive minutes	None

Notes: (1) BACT limits from Permit to Operate No. 9473-AA025 and Operating/Construction Permit No. AQ0272TVP01, Revision 2 are italicized. The revised BACT limits requested by the Permittee from Construction Permit No. 0073-AC061 are underlined.
(2) All turbine group emission limits for NO_X refer to full load, ISO conditions.
(3) All other emission limits refer to full load, standard conditions.

22.1 To demonstrate compliance with the annual emission limits in Table B and Table C:

a. Calculate the monthly and the consecutive 12-month summation of emissions of NO_X, CO, and SO_2 for EU IDs 1 – 20 as grouped in Table B and Table C.

(i) For NOx and CO emissions, use the emission factors found in Table E of this permit, along with the hours of operation and/or amount of fuel used to calculate the monthly emissions for each unit. The Permittee shall consistently use only one method allowed in Section 12 to calculate the monthly and annual pollutant emissions during the entire 3-month period of each operating report.

(ii) For SO_2 emissions, calculate and record the monthly and consecutive 12-month rolling total SO_2 emissions using a mass balance equation with the quantity of fuel burned and the hydrogen sulfide content of fuel gas as measured in Conditions 9.2 and 36.

b. Report the monthly and the consecutive 12-month summation of emissions as grouped in Table B and Table C, for each month of the reporting period with each operating report required by Condition 82. Identify in the operating report which method allowed in Table E was used to calculate each pollutant's monthly and annual emissions for the period covered by that report.

c. Notify the Department per Condition 81 when the consecutive 12-month summation of emissions of any air pollutant exceeds the limit for that pollutant in Table B or Table C.

22.2 To demonstrate compliance with the short-term emission limits in Table B and Table C and to develop current emission factors in Table E:

a. For EU IDs 1 – 9, monitor, record, and report in accordance with Conditions 35.2 through 35.4. Conduct tests at no less than four loads representative of each turbine's typical operating range unless that range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the unit.

b. Within 12 months of the effective date of this permit, conduct CO emission source tests on EU IDs 1 – 9 in accordance with Section 6. Conduct tests at no less than four loads representative of each turbine's typical operating range unless that range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the turbine(s). For units of the same make, model, and design, one unit within the group can be tested. If all turbines within the group have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing is required for that group. Test a unit in the same make/model/design group within one year after exceeding 400 hours of run time in any 12-month period if a test has not been completed on any representative unit of the same make, model, and design during the previous 4 years. Substituting test data is allowed if the Permittee documents the intent to substitute testing for multiple turbines and all other requirements of Conditions 35.2b(i) through 35.2b(iii) are met.

c. Within 12 months of the effective date of this permit, conduct NOx and CO emission source tests on EU IDs 10 – 20 in accordance with Section 6. Conduct tests at no less than four loads representative of each heater's typical operating range unless that range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the unit(s). For units of the same make, model, and design, one unit within the group can be tested as representative. If all heaters within the group have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing is required for that group.

   Test a unit in the same make/model/design group within one year after exceeding 400 hours of run time in any 12-month period if a test has not been completed on any representative unit of the same make, model, and design during the previous 4 years. Substituting test data is allowed if the Permittee documents the intent to substitute testing for multiple heaters and all other requirements of Conditions 35.2b(i) through 35.2b(iii) are met as they would apply to heaters.

d. Monitor, record, and report in accordance with Condition 9 to demonstrate compliance with the short-term BACT SO_2 emission limits in Table C.

e. **Monitoring, Recordkeeping, and Reporting for Short-term PM/Opacity BACT.** For EU IDs 1 through 9, monitor, record and report in accordance with Conditions 1.1 and 22.2e(i) through 22.2e(ii)(C), and maintain records demonstrating that each unit is well-maintained and properly operated.

(i) For each of EU IDs 1 through 9, record any observations of visible emissions (excluding condensed water vapor) in excess of the opacity limit in Table C.

(ii) If continuous visible emissions (excluding condensed water vapor) are observed for longer than 3 minutes, initiate corrective actions within 24-hours to eliminate visible emissions:

(A) Keep a written record of the corrective action starting and completion dates, and a description of the actions taken to eliminate visible emissions; and

(B) Observe the unit at least once each day for the next 7 operating days to ensure that the corrective action has been successful in eliminating visible emissions. After the 7 operating days, if the corrective actions taken do not eliminate the visible emissions, then observe the unit using EPA Method 9 within 24-hours, as specified by 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations. As necessary, take additional corrective actions to eliminate the visible emissions, and repeat the monitoring, recordkeeping, and reporting steps outlined in Conditions 22.2e(ii)(A) and 22.2e(ii)(B) until visible emissions are eliminated.

(1) If Method 9 monitoring is triggered, record and report as required under Conditions 3.1, 4.1 and 4.2a;

(C) Provide a copy of the records required under Condition 22.2e(ii)(A) in the operating report required under Condition 82 for the period covered by the report.

f. For EU IDs 33 – 37, monitor, record, and report in accordance with Condition 5 to demonstrate compliance with the short-term flare BACT PM-10 emission limit in Table C.

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

Alternate Operating Scenario for EU IDs 24 through 31

23. Beginning October 1, 2014, the Permittee shall not operate EU IDs 24 through 31 in any non-emergency situation other than for purposes of maintenance checks and readiness testing and shall limit checks and testing to no more than 100 hours per engine per calendar year, except as allowed under Condition 44.2c. There is no time limit on the use of these engines in emergency situations under this condition.

23.1 Monitor the operating time for each of EU IDs 24 through 31 as required under Condition 44.1.

23.2 Record the monthly and calendar year-to-date total operating time for each of EU IDs 24 through 31 and record the emergency and non-emergency operating time information required under Condition 45.2. In addition, keep a record describing the reason for non-emergency operation.

23.3 For each month of the reporting period, report the data recorded under Condition 23.2 with the operating report required by Condition 82.

23.4 Report under Condition 81 if the calendar year total hours of operation exceed the checks/testing limit under Condition 23 for any of EU IDs 24 through 31 or if any of EU IDs 24 through 31 is operated for any non-emergency purpose other than checks/testing.

[18 AAC 50.040(j) and 50.326(j)]
[40 C.F.R. 71.6(a)(9)]

Insignificant Emission Units

24. For EU IDs 22 – 28, 31, 32[9] and emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

[18 AAC 50.055(a)(1)]

24.2 **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)]

[9] EU IDs 22 – 28, 31, and 32 do not qualify as insignificant units per 18 AAC 50.326(d)(1) because of operational limits established under a Title I permit, but have potential emissions (based on the operational hour-limit required in Conditions 14 and 15) below the significant emissions thresholds in 18 AAC 50.326(e). The Department referenced the general requirements for insignificant emission units to satisfy the State VE and PM MR&R requirements for these units.

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

[18 AAC 50.055(c)]

24.4 **General MR&R for Insignificant Emissions Units**

a. The Permittee shall submit the certification of compliance of Condition 83 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 59;

c. The Permittee shall report in the operating report required by Condition 82 if an emission unit is insignificant because of historical actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions become greater than any of those thresholds;

d. No other monitoring, recordkeeping or reporting is required except as indicated otherwise within the permit.

[18 AAC 50.346(b)(4)]

Section 4. Federal Requirements

Emission Units Subject to Federal NSPS, Subpart A

25. NSPS Subpart A Notification. For any affected facility[10] or existing facility[11] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

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

25.1 the date that construction or reconstruction of an affected facility is commenced postmarked no later than 30 days after such date;

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

25.2 the actual date of initial startup of an affected facility postmarked within 15 days after such date;

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

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

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change;

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

25.4 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 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

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

a. the name and address of owner or operator,

b. the location of the existing facility,

[10] *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.

[11] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a New Source Performance Standard (NSPS) 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, effective.

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 NSPS after the proposed replacements.

26. 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 any of EU IDs 1 – 9, 20, and 33 – 37, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1 – 9, 20, or 33 – 37 is inoperative.

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

27. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. Except as provided for in Condition 36.4a(iii), the Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)[12, 13] as described in this condition for EU IDs 1 – 9. Except as provided for in Condition 28.1, submit the EEMSP reports with the summary report form as required under Condition 28. 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 & 60.334(j), Subpart GG]

27.1 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]

27.2 Specific identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU IDs 1 – 9; 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]

27.3 When no excess emissions have occurred, such information shall be stated in the report.

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

[12] The federal EEMSP report is not the same as the State excess emission report required by Condition 81.
[13] Periods of excess emissions and monitor downtime for units subject to the NSPS Subpart GG SO_2 limit (EU IDs 1 – 9) are defined in 40 C.F.R. 60.334(j)(2).

28. NSPS Subpart A Summary Report Form. Except as provided for in Condition 36.4a(iii), submit to the Department and to EPA a "summary report form" semiannually, postmarked by the 30th day following the end of each 6-month period in the format shown in Figure 1 of 40 C.F.R. 60.7[14] for each pollutant monitored for EU IDs 1 – 9 as follows:

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

28.1 If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, submit only the summary report form **unless** the EEMSP report described in Condition 27 is requested by the Department or EPA; or

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

28.2 If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, submit a summary report form **and** the EEMSP described in Condition 27.

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

29. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct initial 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 EPA, 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]

30. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1 – 9, 20, 33 – 37, and 43 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspections of EU IDs 1 – 9, 20, 33 – 37, and 43.

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

[14] See Summary Report form in Attachment A of the Statement of Basis.

31. 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 33, 35, 36, and/or 37, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1 – 9, 20, 33 – 37, and 43 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]

32. 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 33, 35, 36, and/or 37. 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]

33. NSPS Subpart A General Control Device Requirements. The Permittee shall monitor EU IDs 33 – 37, flares used as control devices for EU ID 43, to ensure that they are operated and maintained in conformance with 40 C.F.R. 60.18(c)(1), (c)(2), (c)(3), (c)(4), (c)(6), 60.18(d), 60.18(e), 60.18(f)(1), (f)(2), (f)(3), (f)(4), (f)(5), and 40 C.F.R. 60.485(g) as outlined below and as required under Condition 37.9.

[18 AAC 50.040(a)(1), 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.18(b) – (f), Subpart A]
[40 C.F.R. 60.633(g), Subpart KKK; 40 C.F.R. 60.482-10(d) & (e) & 60.485(g), Subpart VV]

33.1 EU IDs 33 – 37 shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours and except for periods of startup, shutdown, or malfunction.

[40 C.F.R. 60.18(c)(1) and (f)(1), Subpart A]

a. At least once in every calendar month that EU IDs 33 – 37 operate, momentarily observe their exhaust during normal operation for indications of visible emissions (VE). Keep a log of the observations in accordance with Condition 33.1c. Observations may be made via remote video camera monitoring from the control room if an operator cannot see the exhaust of EU IDs 33 – 37 through a window or cannot go outside for safety or weather reasons to make observations.

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

b. If visible emissions are observed at any time during normal flaring operations of EU IDs 33 – 37, the Permittee shall conduct a visible emission (VE) evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 22. The Method 22 VE observation period shall not be less than 2 hours in duration, sufficient to document a violation of Condition 33.1. Observation of the flares may be postponed for safety or weather reasons. If visible emissions are noted for a total of more than 5 minutes during the Method 22 VE observation:

(i) Determine whether the flares are being properly operated and maintained.

(ii) Initiate corrective actions, if necessary, to eliminate visible emissions from the emission unit(s) within 24 hours of the Method 22 VE observation;

(iii) Keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions; and

(iv) After completing the corrective actions, conduct a follow-up VE evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 22 within 3 days. The Method 22 VE observation period shall not be less than 2 hours in duration. The 3-day time limit to conduct observations may be extended by the Department for sufficient cause.

(v) Visible emissions observed during startup, shutdown or malfunction shall not be considered a violation of Condition 33.1.

[40 C.F.R. 60.11(c), Subpart A]
[40 C.F.R. 60.485(g)(1), Subpart VV]

c. For observations of visible emissions per Condition 33.1a and for any Method 22 observations per Condition 33.1b, record the following information in a written log for each observation of EU IDs 33 – 37:

(i) From Table A, the ID of the emission unit observed;

(ii) The date, time, and duration of the observation;

(iii) For observations conducted per:

(A) Condition 33.1a, whether visible emissions are present or absent in the exhaust plume, or

(B) Condition 33.1b, accumulated time visible emissions are present in the exhaust;

(iv) A description of the background to the exhaust during the observation;

(v) Name and location of the person making the observation; and

(vi) Keep records in accordance with Condition 33.1b(iii).

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

33.2 EU IDs 33 – 37 shall be operated with a flame present at all times. The Permittee shall monitor the presence of the flare pilot using a thermocouple or other equivalent device.

a. The Permittee shall maintain records of all periods of operation during which the flare pilot flame is absent.

[18 AAC 50.040(a)(1), (a)(2)(Z) & (DD), 50.040 (j); 18 AAC 50.326(j)]
[40 C.F.R. 60.18(c)(2) & (f)(2), Subpart A]
[40 C.F.R. 60.485(g)(2), Subpart VV]
[40 C.F.R. 71.6(a)(3)]

33.3 The net heating value of the gas combusted by EU IDs 33 – 37 shall be 200 Btu/scf or greater.

a. The lower heating value (LHV) shall be determined using ASTM D-1826, D-4891 or from a calculation method based on a semiannual gas composition analysis. The Permittee may propose to the Department alternative monitoring procedures. The alternative monitoring procedures must satisfy the underlying purpose for this monitoring.

b. The Permittee shall maintain records of the initial performance test and any subsequent test(s) requested by the Department or by EPA that show the net heating value of any gas or vapor vented to the flares.

[18 AAC 50.040(a)(1), (a)(2)(Z) & (DD)]
[40 C.F.R. 60.18(c)(3) and (f)(3), Subpart A]
[40 C.F.R. 60.485(g)(4), (5), & (6), Subpart VV]

33.4 EU IDs 33 – 37 shall be steam-assisted, air-assisted, or nonassisted.

[40 C.F.R. 60.18(c)(6)]

33.5 Since EU IDs 33 – 37 are nonassisted, the maximum permitted velocity shall not exceed the lesser of 122 m/sec or the value (VMax) determined by the following equation:

$$Log_{10}(Vmax) = (H_T + 28.8) / 31.7$$

Where:

Vmax = maximum permitted velocity, m/sec, and
H_T = net heating value (MJ/scm) as determined in Condition 33.3a.

a. The Permittee shall determine the actual exit velocity of EU IDs 33 – 37 by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by EPA 40 C.F.R. Appendix A, Reference Methods 2, 2A, 2C, or 2D as appropriate, by the unobstructed (free) cross sectional area of the flare tip, or using the method approved by EPA per letter dated 22 August 2005.

b. The Permittee shall maintain records of the initial performance test and any subsequent test(s) requested by the Department or by EPA that show the actual flare exit velocity.

[18 AAC 50.040(a)(1), (a)(2)(Z) & (DD), 50.040 (j); 18 AAC 50.326(j)]
[40 C.F.R. 60.18(c)(4), (f)(4) & (f)(5), Subpart A]
[40 C.F.R. 60.485(g)(7), Subpart VV]
[40 C.F.R. 71.6(a)(3)]

33.6 The Permittee shall operate and maintain EU IDs 33 – 37 in conformance with their design.

[40 C.F.R. 60.18(d), Subpart A]

33.7 EU IDs 33 – 37 shall be operated at all times when emissions may be vented to them.

[40 C.F.R. 60.18(e), Subpart A]

33.8 The Permittee shall report excess emissions or permit deviations, in accordance with Condition 81, as follows:

a. For failure to conduct monitoring or recordkeeping per Conditions 33.1 through 33.5.

b. When the exhaust of any of EU IDs 33 – 37 is visible for more than a total of five (5) minutes during any two (2) consecutive hours, except if the emissions are observed during startup, shutdown or malfunction.

c. When the pilot flame is absent from any of EU IDs 33 – 37 and emissions could have been vented to the flares.

d. When the heating value of flared gas is less than 200 Btu/scf.

e. When the actual exit velocity of any of EU IDs 33 – 37 obtained as a result of tests conducted per Condition 33.5a exceeds the maximum permitted exit velocity determined in accordance with Condition 33.5.

[18 AAC 50.040(a)(1) & (j); 18 AAC 50.326(j)]
[40 C.F.R. 60.11(c), Subpart A]
[40 C.F.R. 71.6(a)(3)(iii)]

33.9 Submit with the operating report required under Condition 82:

a. The dates that VE observations per Condition 33.1a were made, and the dates, if any, that a Method 22 VE per Condition 33.1b was observed during the period covered by the report; and

b. Copies of records required under Conditions 33.2a, 33.3b, and 33.5b for the period covered by the report. (Records of the initial performance tests required under Conditions 33.3 and 33.5 need not be included with each operating report, only the records of any subsequent performance tests conducted at the request of the Department or EPA during the reporting period).

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

Steam Generating Units Subject to NSPS Subpart Dc, EU ID 20

34. NSPS Subpart Dc Fuel Consumption. For EU ID 20, the Permittee shall record and maintain records of the amount of fuel combusted during each operating day; or monitor according to an EPA approved custom fuel-monitoring schedule.

34.1 As an alternative to meeting the requirements of Condition 34, the Permittee may elect to record and maintain records of the amount of fuel combusted during each calendar month.

[18 AAC 50.040(a)(2)(D)]
[40 C.F.R. 60.48c(g), Subpart Dc]

Turbines Subject to NSPS Subpart GG, EU IDs 1 – 9

35. NSPS Subpart GG NOx Standard.

35.1 The Permittee shall not allow the exhaust gas concentration of NOx to exceed:

a. **153 ppmvd** at 15 percent O_2, ISO corrected, from EU IDs 1 – 3;

b. **173 ppmvd** at 15 percent O_2, ISO corrected, from EU IDs 4 and 5;

c. **198 ppmvd** at 15 percent O_2, ISO corrected, from EU IDs 6 – 9;

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

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

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

a. **Periodic Testing.** For each turbine subject to Conditions 20, 22, and/or 35, the Permittee shall satisfy either Condition 35.2a(i) or 35.2a(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 applicable limit shown in Conditions 20, 22, and/or 35, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A:

(A) Within 1 year of the effective date of this permit if the last source test occurred greater than four years prior to the effective date of this permit and the turbine operated 400 hours or more in any 12-month period (trigger event) ending during any of the 6 months that precede the permit effective date, or

(B) Within 1 year after a trigger event (as defined in Condition 35.2a(i)(A)) if the last source test occurred greater than 4 years prior to the trigger event at any time during the permit term.

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of any of the applicable limits shown in Conditions 20, 22, and/or 35, the Permittee shall conduct a NOx and O_2 source test under 40 C.F.R. 60, Appendix A-7, 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 applicable limits of Conditions 20, 22, and/or 35.

b. **Substituting Test Data.** The Permittee may use a source test under Condition 35.2a performed on only one of a group of similarly configured turbines to satisfy the requirements of those conditions for the other turbines in the group if

(i) The Permittee demonstrates that test results are less than or equal to 90 percent of the applicable emission limit of Conditions 20, 22, and/or 35, and are projected under Condition 35.2c to be less than or equal to 90 percent of the applicable limits at maximum load;

(ii) For any source test done 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 operated under close to identical ambient conditions as the tested unit;

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

(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 any of the applicable emission limits of Conditions 20, 22 and 35.

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

(i) Conduct all tests under Condition 35.2 in accordance with 40 C.F.R. 60.335(b)(2), except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

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

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

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

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

(2) a demonstration based on the additional test information that projects the test results from Condition 35.2 to predict the highest load at which emissions will comply with the applicable limits in Conditions 20, 22 and 35;

(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 any of the applicable limits of Conditions 20, 22, and/or 35;

(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 source test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 35.2c(iii)(A); the new limit is subject to any new Department finding under Condition 35.2c(iii)(C).

(iv) In order to perform an emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 35.2c(iii).

(v) For the purposes of Conditions 35.2 through 35.4, 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.

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

[18 AAC 50.040(j); 18 AAC 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 35.2c(iii) does not show compliance with any of the applicable limits of Conditions 20, 22, and/or 35 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 35.3a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 35.2c(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 35.2c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Conditions 20, 22, and/or 35 that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

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

[18 AAC 50.040(j); 18 AAC 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 35.2c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 35.3a during the period covered by the operating report.

b. In each operating report under Condition 82 for each turbine for which Condition 35.2 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) source testing is required under Condition 35.2a(i) or 35.2a(ii) but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 35.2c(iii)(B) and 35.2c(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); 18 AAC 50.040(a)(1)]
[40 C.F.R. 60.8(b), Subpart A]

36. NSPS Subpart GG Sulfur Standard. The Permittee shall not allow the sulfur content for the fuel burned in EU IDs 1 – 9 to exceed 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V)]
[40 C.F.R. 60.333(b), Subpart GG]

36.1 **Monitoring.** The Permittee shall monitor compliance with the fuel sulfur content standard listed in this condition as follows:

[18 AAC 50.040(a)(2)(V)]
[40 C.F.R. 60.334 & 60.335, Subpart GG]

a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Conditions 36.1b and 36.1c. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 36.2a. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4,000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86, which measure the major sulfur compounds may be used.

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

b. Notwithstanding the provisions of Conditions 36.1a and 36.1c, and upon submittal of a certified statement to the Department that, pursuant to 40 C.F.R. 60.334(h)(3), the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u)[15], the Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee shall use one of the following sources of information to make the required demonstration:

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

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

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

[15] From 40 C.F.R. 60.331(u), *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 ppmw total sulfur, and 338 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 Btu/scf.

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 Permittee may, without submitting a special petition to the Administrator, continue monitoring on this schedule. The EPA-approved Custom Fuel Monitoring Schedule (8/30/88 and 8/19/96) and Alternate H_2S Sampling Method (10/2/97) allow the Permittee to determine the sulfur content of the fuel gas at least monthly using ASTM D 4810-88, ASTM D 4913-89, or Gas Producer's Association (GPA) Method 2377-86.

[40 C.F.R. 60.334(h)(4), Subpart GG]
[Custom Fuel Monitoring Schedule, 8/30/88 and 8/19/96]
[Alternative Monitoring Plan, 10/2/97]

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

(i) **Gaseous fuel.** If the Permittee elects not to demonstrate sulfur content using options in Condition 36.1b or 36.1c, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined under Condition 36.1a and recorded once per unit operating day.

(ii) **Custom schedules.** Notwithstanding the requirements of Condition 36.1d(i), the Permittee may develop a custom schedule 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, according to the provisions and as allowed under 40 C.F.R. 60.334(i)(3). 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), Subpart GG]

36.2 **Test Methods and Procedures.** If the Permittee periodically determines the sulfur content of the fuel combusted in the turbine under Conditions 36.1a and 36.1d(i), a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

a. For gaseous fuels, ASTM D1072-80, 90; D3246-81, 92, 96; D4468-85; or D6667-01. 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.

b. The fuel analyses required under Conditions 36.1 and 36.2 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.

[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 60.335(b)(10)(ii) & (11), Subpart GG]

36.3 **Recordkeeping.** Keep records of analyses conducted under Conditions 36.1 and 36.2.

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

36.4 **Reporting.** The Permittee shall:

a. for each affected unit for which the Permittee periodically determines the fuel sulfur content under Condition 36.1a, 36.1c, or 36.1d,

(i) semi-annually report the results of all sulfur monitoring to EPA and send a copy to the Department by the 30th day following the end of each 6-month period, except as otherwise approved by a custom fuel monitoring schedule;

(ii) include with the report submitted under Condition 36.4a(i) a report of excess emissions and monitoring system downtime in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 27 and as defined under 40 C.F.R. 60.334(j)(2). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction.

(iii) If periodic gaseous fuel sulfur monitoring is not required to be conducted because the demonstration under Condition 36.1b has been made, reporting under Conditions 27, 28, and this condition is not required.

[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 60.334(j)(2) & (5), Subpart GG]

b. include a copy of the records required by Condition 36.3 with the operating report required by Condition 82 for the period covered by the report; and

c. report under Condition 81 if

(i) a test result exceeds the limit in Condition 36;

(ii) monitoring is required under Condition 36.1 but not performed; or

(iii) any reporting required under Condition 36.4 is not completed.

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

Emission Units Subject to NSPS Subpart KKK, EU IDs 33 – 37 and 43

37. NSPS Subpart KKK Standards (including Monitoring and Repairs).

37.1 **Pumps in Light Liquid Service (40 C.F.R. 60.482-2).** Pumps in light liquid service shall be checked by visual inspection each calendar week for indications of a leak[16]. Pumps equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of Condition 37.9 are exempt from the requirement of this condition pursuant to 40 C.F.R. 60.482-2(f).

a. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. 60.482-9.

b. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

[18 AAC 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-2(a)(2), (b)(2), (c) & (f) & 60.482-9, Subpart VV]

37.2 **Compressors (40 C.F.R. 60.482-3).** Affected compressors shall either be equipped with a seal system which vents to a closed vent system designed and operated in accordance with Conditions 37.9 and 37.9a – 37.9d (40 C.F.R. 60.482-10), or a seal system that includes a barrier fluid system and that prevents leakage of volatile organic compounds (VOC) to the atmosphere, designed and operated in accordance with provisions of 40 C.F.R. 60.482-3(b), (c), and (d).

[18 AAC 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-3(b), (c), & (d), Subpart VV]

a. The sensor(s) for the compressor barrier fluid systems and/or seal systems shall be checked daily or shall be equipped with an audible alarm.

b. When a leak is detected[17], it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. 60.482-9.

c. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-3(e), (f), & (g) & 60.482-9, Subpart VV]

[16] A *leak* is defined for purposes of this condition as any indications of liquids dripping from the pump seal [ref. 40 C.F.R. 60.482-2(b)(2)].

[17] A *leak* is defined for purposes of this condition as any failure of the seal system, the barrier fluid system, or both [ref. 40 C.F.R. 60.482-3(f)].

37.3 **Pressure Relief Devices in Gas/Vapor Service (40 C.F.R. 60.482-4 and 40 C.F.R. 60.633(b)).** Except during pressure releases, each pressure relief device in gas/vapor service that vents to atmosphere shall be operated with no detectable emissions[18], except as provided by Conditions 37.4 and 37.5.

[18 AAC 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.633(a), Subpart KKK]

a. Pressure relief devices that vent to atmosphere shall be returned to a condition of no detectable emissions, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 C.F.R. 60.482-9.

b. Pressure relief devices that vent to atmosphere shall be monitored in accordance with 40 C.F.R. 60.485(c) using Method 21 (40 C.F.R. 60, Appendix A-7) to confirm the condition of no detectable emissions no later than 5 calendar days after any pressure release.

[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-4(a) & (b), 60.485(c), & 60.482-9, Subpart VV]

37.4 In lieu of meeting the requirements of Conditions 37.3, 37.3a, and 37.3b, the Permittee may elect to comply with the following:

a. Each pressure relief device in gas/vapor service may be monitored within 5 days after each pressure release to detect leaks in accordance with 40 C.F.R. 60.485(b) using Method 21 (40 C.F.R. 60, Appendix A-7).[19] Method 21 monitoring is not required if the Permittee assumes that a leak would be detected by such monitoring and proceeds with leak repairs per Conditions 37.4b and 37.4c.

b. When a leak is detected[20], it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 C.F.R. 60.482-9.

c. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

[18 AAC 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.633(b), Subpart KKK]
[40 C.F.R. 60.485(b), Subpart VV]

37.5 Pressure relief devices equipped with a rupture disk upstream of the pressure relief device are exempt from the requirements of Condition 37.3, provided the Permittee complies with the following requirement pursuant to 40 C.F.R. 482-4(d):

[18] Emissions are detected as defined for this condition as any Method 21 reading of 500 ppm or greater above background [ref. 40 C.F.R. 60.482-4(b)(1)].

[19] Pressure relief devices in gas/vapor service are exempt from the routine (quarterly) monitoring requirement of 40 C.F.R. 60.633(b)(1) [ref. 40 C.F.R. 60.633(e)].

[20] A *leak* is defined for this condition as any Method 21 reading of 10,000 ppm or greater [ref. 40 C.F.R. 60.633(b)(2)], or any evidence of a leak that the Permittee considers a leak.

a. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 C.F.R. 60.482-9.

[18 AAC 50.040(a)(2)(DD)]
[40 C.F.R. 60.482-4(d), Subpart KKK]

37.6 **Open-ended Valves or Lines (40 C.F.R. 60.482-6).** Open-ended valves or lines shall be equipped with a cap, blind flange, plug or a second valve and shall be operated in accordance with provisions of 40 C.F.R. 60.482-6.

[18 AAC 50.040(a)(2)(Z) & (DD)]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-6, Subpart VV]

37.7 **Valves in Gas/Vapor Service and in Light Liquid Service (40 C.F.R. 60.482-7).** For valves in gas/vapor service and in light liquid service, if a leak is detected[21], the valve shall be monitored monthly in accordance with 40 C.F.R. 60.485(b) using Method 21 (40 C.F.R. 60, Appendix A-7) until a leak is not detected for 2 successive months. Method 21 monitoring is not required if the Permittee assumes that a leak would be detected by such monitoring and proceeds with leak repairs per Conditions 37.7a and 37.7b.

a. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. 60.482-9.

b. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. This shall include, but is not limited to, the best practices described under 40 C.F.R. 60.482-7(e).

[18 AAC 50.040(a)(1), (a)(2)(Z) & (DD)]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-7(b), (c)(2), (d) & (e) & 60.482-9, Subpart VV]
[40 C.F.R. 60.485(b), Subpart VV]

37.8 **Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors (40 C.F.R. 60.482-8).** If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, the Permittee shall monitor within 5 days the pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors in accordance with 40 C.F.R. 60.485(b) using Method 21 (40 C.F.R. 60, Appendix A-7) to determine the presence of leaking sources. Method 21 monitoring is not required if the Permittee assumes that a leak would be detected by such monitoring and proceeds with leak repairs per Conditions 37.8a and 37.8b.

[18 AAC 50.040 (a)(2)(Z) & (DD)]
[40 C.F.R. 60.632(a) & (d), Subpart KKK]
[40 C.F.R. 60.482-8(a) & 60.485(b), Subpart VV]

[21] A *leak* is defined for this condition as any Method 21 reading of 10,000 ppm or greater [ref. 40 C.F.R. 60.482-7(b)], or any evidence of a leak that the Permittee considers a leak.

a. When a leak is detected[22], leak repairs shall be completed as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. 60.482-9.

[40 C.F.R. 60.482-8(b), 60.482-8(c)(1) & 60.482-9, Subpart VV]

b. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. This shall include, but is not limited to, the best practices described under 40 C.F.R. 60.482-7(e).

[40 C.F.R. 60.482-8(c)(2) & (d) & 60.482-7(e), Subpart VV]

37.9 **Closed Vent Systems and Control Devices (40 C.F.R. 60.482-10).** Closed vent systems and control devices (EU IDs 33 – 37) used to comply with 40 C.F.R. 60.482-10 (pressure relief devices which vent to the flare header or closed systems) shall be operated at all times when emissions may be vented to them. EU IDs 33 – 37 shall be designed and operated to comply with 40 C.F.R. 60.18, as stated in Condition 33.

[18 AAC 50.040(a)(1), (a)(2)(Z) & (DD)]
[40 C.F.R. 60.18(e), Subpart A]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-10, Subpart VV]

a. The Permittee shall monitor the control devices (EU IDs 33 – 37) to ensure that they are operated and maintained in conformance with their designs.

[40 C.F.R. 60.18(d), Subpart A]
[40 C.F.R. 60.632(a), Subpart KKK]
[40 C.F.R. 60.482-10(e), Subpart VV]

b. For each closed vent system used to comply with applicable provisions of 40 C.F.R. 60.482-10, conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

[40 C.F.R. 60.482-10(f)(1)(ii), Subpart VV]

c. When a leak is detected[23], perform leak repair procedures as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 C.F.R. 60.482-9.

[40 C.F.R. 60.482-10(g)(2) & 60.482-9, Subpart VV]

d. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

[40 C.F.R. 60.482-10(g)(1), Subpart VV]

38. NSPS Subpart KKK Recordkeeping. The Permittee shall comply with the following recordkeeping requirements:

[18 AAC 50.040(a)(2)(Z) & (DD) & 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[40 C.F.R. 60.635(a), Subpart KKK]
[40 C.F.R. 60.486, Subpart VV]

[22] A *leak* is defined for this condition as any Method 21 reading of 10,000 ppm or greater [ref. 40 C.F.R. 60.482-8(b)], or any evidence of a leak that the Permittee considers a leak.

[23] A *leak* is defined for this condition as any Method 21 reading of 500 ppm or greater above background [ref. 40 C.F.R. 60.482-10(g)], or any evidence of a leak that the Permittee considers a leak.

38.1 When a leak is detected as specified by Conditions 37.1, 37.2b, 37.4b, 37.7, or 37.8a, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Condition 37.7 and no leak has been detected during those 2 months. The identification on equipment except a valve, may be removed after it has been repaired.

38.2 For each leak detected as specified by Condition 37.1, 37.2b, 37.4b, 37.7, or 37.8a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location:

[40 C.F.R. 60.635(a) & (b), Subpart KKK]
[40 C.F.R. 60.486(b) & (c), Subpart VV]

a. The instrument and operator identification numbers and the equipment identification numbers;

b. The date the leak was detected and the dates of each attempt to repair the leak;

c. Repair methods applied in each attempt to repair the leak;

d. "Above 10,000 ppm" if the maximum instrument reading measured by Method 21 after each repair attempt is equal to or greater than 10,000 ppm;

e. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;

f. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown;

g. The expected date of successful repair of the leak if a leak is not repaired within 15 days;

h. Dates of process unit shutdown that occur while the equipment is unrepaired; and

i. The date of successful repair of the leak.

38.3 The following information pertaining to the design requirements for closed vent systems and control devices described in Conditions 37.2 and 37.9 shall be recorded and kept in a readily accessible location:

[40 C.F.R. 60.635(a), Subpart KKK]
[40 C.F.R. 60.486(d), Subpart VV]

a. Detailed schematics, design specifications, and piping and instrumentation diagrams;

b. The dates and descriptions of any changes in the design specifications;

c. A description of the parameter(s) monitored, as required in Condition 37.9a, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter(s) was selected for the monitoring;

d. Periods when the closed vent systems and control devices required in Conditions 37.2 and 37.9 are not operated as designed, including periods when a flare pilot light in any of EU IDs 33 – 37 does not have a flame; and

e. Dates of startups and shutdowns of the closed vent systems and control devices required in Conditions 37.2 and 37.9.

38.4 The following information shall be recorded in a log that is kept in a readily accessible location:

[40 C.F.R. 60.635(a), Subpart KKK]
[40 C.F.R. 60.486(e) & (j), Subpart VV]

a. A list of identification numbers for equipment subject to the applicable requirements of NSPS Subpart KKK (40 C.F.R. 60.482-2, 60.482-3, 60.482-4, 60.482-6, 60.482-7, 60.482-8, and 60.482-10) as stated in Conditions 37.1, 37.2, 37.3, 37.6, 37.7, 37.8 and 37.9;

b. A list of equipment identification numbers for pressure relief devices required to comply with 40 C.F.R. 60.482-4, as stated in Condition 37.3;

c. The dates of each compliance test as required in 40 C.F.R. 60.482-4, as stated in Condition 37.3b;

d. The background level measured during each compliance test conducted per Condition 37.3b;

e. The maximum instrument reading measured at the equipment during each compliance test conducted per Condition 37.3b;

f. A list of identification numbers for equipment in vacuum service; and

g. Information and data used to demonstrate that a piece of equipment is not in VOC service.

39. NSPS Subpart KKK Reporting. The Permittee shall submit to EPA and the Department semi-annual reports that shall include the following:

[18 AAC 50.040(a)(2)(Z) & (DD) & 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]
[40 C.F.R. 60.636, Subpart KKK]
[40 C.F.R. 60.487(c), Subpart VV]

39.1 Process unit identification;

39.2 For each month during the semi-annual reporting period,

a. number of valves for which leaks were detected as described in Condition 37.7;

b. number of valves for which leaks were not repaired as required in Condition 37.7a;

c. number of pumps for which leaks were detected as described in Condition 37.1;

d. number of pumps for which leaks were not repaired as required in Condition 37.1a;

e. number of compressors for which leaks were detected as described in Condition 37.2b;

f. number of compressors for which leaks were not repaired as required in Condition 37.2b;

g. an explanation of each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible;

h. number of pressure relief devices for which leaks were detected as described in Condition 37.4b;

i. number of pressure relief devices for which leaks were not repaired as required in Conditions 37.4b and 37.4c;

39.3 Dates of process unit shutdowns which occurred within the semi-annual reporting period; and

39.4 Revisions to items reported in the initial semi-annual report if changes have occurred since the initial report or subsequent revisions to the initial report.

40. NESHAP, Subpart ANESHAP **Subpart A and ZZZZ Requirements.** The Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A for EU IDs 21 th**r**ough 32, in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart ZZZZ.

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

Stationary RICE Subject to NESHAPs Subpart ZZZZ, EU IDs 21 – 32

41. NESHAPs Subpart ZZZZ Work Practice Standards and General Maintenance Requirements. For EU IDs 21 – 32 listed in Table A, the Permittee shall comply with the following requirements:

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6595(a)(1), Subpart ZZZZ]

41.1 **Good Air Pollution Control Practices.** At all times operate and maintain EU IDs 21 through 32, 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 21 - 32. The Permittee shall comply with either:

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

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

[40 C.F.R. 63.6605(b), 63.6625(e), and Table 6 item 9, Subpart ZZZZ]

41.2 **Startup and Idle Time.** For EU IDs 21 through 32, minimize the time spent at idle during startup and minimize the startup time to a period needed for appropriate and safe loading, not to exceed 30 minutes.

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

42. NESHAP Subpart ZZZZ Emissions Management Practices. For EU IDs 21 and 24 -31, existing emergency stationary CI RICE located at an area source of HAP emissions, the Permittee shall comply with the following emissions management practices:

[40 C.F.R. 63.6595(a)(1), Subpart ZZZZ]

42.1 Except as allowed by Condition 42.2,

a. Change oil and filter every 500 hours of operation or annually, whichever comes first[24];

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 C.F.R. 63.6603(a), 63.6625(i), & Table 2d, item 4, Subpart ZZZZ]

[24] The Permittee has the option to utilize an oil analysis program as described in 40 C.F.R. 63.6625(i) in order to extend the specified oil change requirement in Condition 42.1a. [ref. Table 2d, Footnote 1 and 40 C.F.R. 63.6625(i)]

42.2 If any of EU IDs 21 and 24 - 31 is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required under Condition 42.1, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

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

43. NESHAP Subpart ZZZZ Emissions Management Practices. For EU IDs 22, 23 and 32, re-classified by the Permittee for purposes of 40 C.F.R. 63, Subpart ZZZZ as existing non-emergency non-black start stationary CI RICE ≤ 300 hp located at an area source of HAP emissions, the Permittee shall comply with the following:

43.1 Change the oil and filter every 1,000 hours of operation or annually, whichever comes first[25];

43.2 Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and

43.3 Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 C.F.R. 63.6603(a) and Table 2d (Item 1) of Subpart ZZZZ]

44. NESHAP Subpart ZZZZ Monitoring. For existing emergency stationary CI RICE, EU IDs 21 and 24 - 31, the Permittee shall comply with the following:

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

44.1 Install a non-resettable hour meter if one is not already installed. Monitor the operating time using the non-resettable hour meter.

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

44.2 **Operating Time Limits**: To be classified as an emergency stationary engine, EU IDs 21 and 24 - 31 must be operated according to the requirements of Conditions 44.2a through 44.2d. Any of EU IDs 22, 23, and 32 (that the Permittee has reclassified as a non-emergency engine in Condition 43) and EU 21 (if reclassified as a non-emergency engine), instead must comply with Condition 47. EU IDs 24 through 31 must always operate according to Conditions 44.2a through 44.2d.

[25] The Permittee has the option to utilize an oil analysis program as described in 40 C.F.R. 63.6625(i) to extend the specified oil change requirement in Condition 43.1. [ref. 40 C.F.R. 63, Subpart ZZZZ, Table 2d, footnote 1]

a. Any operation of EU IDs 21 and 24 through 31 for purposes other than emergency operation, maintenance and testing as described in Condition 44.2c, and operation in non-emergency situations for up to 50 hours per calendar year, as allowed in Condition 44.2d, is prohibited[26].

b. There is no time limit under this condition on the use of emergency stationary RICE (EU IDs 21 and 24 through 31) in emergency situations.

c. The Permittee may operate the emission units for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units is limited to 100 hours per calendar year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

d. The Permittee may operate the emission units up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing under Condition 44.2c. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity[27].

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

45. NESHAP Subpart ZZZZ Recordkeeping. For each of EU IDs 21 – 32, the Permittee shall keep the following records:

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

45.1 Records of the maintenance conducted on each engine in order to demonstrate that the engine and after-treatment control device (if any) are operated and maintained according to the Permittee's own maintenance plan, if maintenance is performed as allowed under Condition 41.1b. These records must include at a minimum: oil and filter change dates and corresponding hour on the hour meter; inspection and replacement dates for air cleaners, hoses, and belts; and records of other emission-related repairs and maintenance performed.

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

[26] Although Subpart ZZZZ allows affected emergency engines to operate up to 50 hours per calendar year for non-emergency situations other than maintenance and testing, the Permittee has requested to limit non-emergency operation of EU IDs 24 through 31 to maintenance and testing only, making the operating limit for these emission units more restrictive than the operations allowed under Subpart ZZZZ. Condition 23 outlines the requested restriction and associated monitoring, recordkeeping, and reporting.

[27] Although Subpart ZZZZ allows affected emergency engines to operate up to 50 hours per calendar year for non-emergency situations other than maintenance and testing, the Permittee has requested to limit non-emergency operation of EU IDs 24 through 31 to maintenance and testing only, making the operating limit for these units more restrictive than the operations allowed under Subpart ZZZZ. Condition 23 outlines the requested restriction and associated monitoring, recordkeeping, and reporting.

45.2 Records of the hours of operation of each of EU IDs 21 and 24 through 31 including:

a. The calendar year total number of hours spent for emergency operation, including what classified the operation as emergency and

b. The calendar year total number of hours spent for non-emergency operation.

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

45.3 Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form, and for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. All records may be retained off site.

[40 C.F.R. 63.6660, 63.6665, and Table 8, Subpart ZZZZ]

46. NESHAP Subpart ZZZZ Reporting. The Permittee shall report as follows:

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

46.1 For existing emergency stationary CI RICE (EU IDs 21 and 24 through 31, include in the operating report under Condition 82 any failure to perform the management practice on the schedule required in Condition 42.1 as a result of operating under the emergency exception allowed by Condition 42.2. Include the Federal, State or local law under which the risk of performing the management practice on the required schedule was deemed unacceptable (see Condition 42.2);

[40 C.F. R. 63, Footnote 1 to Table 2d, Subpart ZZZZ]

46.2 Include in the operating report required by Condition 82 a report of Subpart ZZZZ 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 of Subpart ZZZZ) was not met; and

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

46.3 Notify the Department in accordance with Condition 81 if any of the requirements in Conditions 40 through 45 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)]

Operational Flexibility under Subpart ZZZZ for Production Pad Generators > 300 hp

47. NESHAP Subpart ZZZZ Classification Change. The Permittee may change the classification of EU ID 21 from emergency to non-emergency and may operate the engine as non-emergency engines when the requirements of Conditions 47.1 through 47.3 have been met[28]:

[18 AAC 50.040(j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3) & (13) and 71.6(c)(6)]

47.1 Comply with the requirements of Condition 89.

[28] If you do not operate the engine(s) according to 40 C.F.R. 63.6640(f)(1)(i) – (iii) (Condition 44.2), the engine(s) will not be considered an emergency engine(s) under the subpart (§63 Subpart ZZZZ) and the Permittee will need to meet all requirements for non-emergency engines for the remainder of the permit term.

47.2 Include the following information in addition to that required by Condition 89.2 in the written notification required by Condition 89.1:

a. a comprehensive list of the requirements of 40 C.F.R. 63 Subparts A and ZZZZ that will apply as a result of the change in operational status;

b. a certification that the engine changing classification meets or will meet the new applicable emission, operation, and fuel sulfur limits listed in the notification as required under Condition 47.1 prior to the stated date of the intended change in operational status; and

c. the information required in 40 C.F.R. 63.9(b)(2)(i) – (v).

[40 C.F.R. 63.9(b)(2), Subpart A]

47.3 Comply with all the NESHAP Subpart ZZZZ emissions standards, operating limitations, fuel requirements, notification, performance test, compliance demonstration, monitoring, recordkeeping, and reporting requirements, as well as the associated NESHAP Subpart A requirements applicable to EU ID 21.

47.4 **Initial Performance Test.** Conduct initial performance test or other initial compliance demonstration within 180 days after changing from an emergency engine to a non-emergency engine or 180 days after the compliance date set in Condition 42 (i.e., by October 30, 2013), whichever is later, according to the provisions in 40 C.F.R. 63.7(a)(2) and 40 C.F.R. 63.6620.

a. Comply with the performance test notification and reporting requirements and deadlines outlined in 40 C.F.R. 63.7(b), 63.7(c), 63.9(h)(2), and 63.10(d)(2).

[40 C.F.R. 63.6595(a)(7), 63.6612, 63.6620, Subpart ZZZZ]
[40 C.F.R. 63.7(a) – (c), 63.9(h)(2), 63.10(d)(2), Subpart A]

Risk Management Plan (RMP) Requirements, 40 C.F.R. 68

48. The Permittee shall comply with Program 1 Chemical Accident Prevention provisions of 40 C.F.R. 68. The Permittee shall review and update the RMP at least once every five years from the date of its initial submission (September 9, 2010) or at least once within 5 years of the most recent update submitted as required by 40 C.F.R. 68.190(b)(2) through (b)(7), whichever is later. The revised RMP shall be submitted using the method and format specified by EPA.

48.1 **Recordkeeping.** The Permittee shall keep a copy of the complete Program 1 RMP available for inspection.

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

Section 5. General Conditions

Standard Terms and Conditions

49. 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); 18 AAC 50.345(a) & (e)]

50. 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); 18 AAC 50.345(a) & (f)]

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

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

52. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-405.

[18 AAC 50.326(j)(1); 18 AAC 50.400; 18 AAC 50.403; 18 AAC 50.405]
[AS 37.10.052(b), 11/04; AS 46.14.240, 8/1/07]

53. **Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year (TPY). The quantity for which fees will be assessed is the lesser of

53.1 the stationary source's assessable potential to emit of 3,390 TPY; or

53.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

d. other methods and calculations approved by the Department**.**

[18 AAC 50.040(j)(3) 7/25/08; 18 AAC 50.326(j)(1); 18 AAC 50.035 & 50.346(b)(1); 18 AAC 50.410; 18 AAC 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

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

54.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Suite 303, Juneau, AK 99801-1795**;** the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

54.2 if no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 53.1.

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

55. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 10 – 19, 38, 41, and 42:

55.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

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

55.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030; 18 AAC 50.326(j)(3); 18 AAC 50.346(b)(5)]

56. 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)]

57. 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. Monitoring shall consist of an annual certification that reasonable precautions were taken.

[18 AAC 50.045(d); 18 AAC 50.040(e); 18 AAC 50. 326(j)(3); 18 AAC 50.346(c)]

58. 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. Monitoring shall consist of an annual certification that the Permittee does not conduct stack injection at the stationary source.

[18 AAC 50.055(g)]

59. 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, 5/26/72; 18 AAC 50.040(e); 18 AAC 50.326(j)(3); 18 AAC 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

Monitoring, Recordkeeping, and Reporting for Condition 59.

59.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 81.

59.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 59.

59.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after 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 59; or

b. the Department notifies the Permittee that it has found a violation of Condition 59.

59.4 **Recordkeeping**. The Permittee shall keep records of

a. the date, time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 59; and

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

59.5 **Reporting.** With each operating report required under Condition 82, and for the period covered by the report, the Permittee shall include a brief summary report which must include:

a. the number of complaints received;

b. the number of times the Permittee or the Department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

59.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

60. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard[29] listed in Condition 22, 35, or 36, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 81 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 81.

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

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

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

62. Refrigerant Recycling and Disposal. 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. Applicable requirements include 40 C.F.R. 82.154, 82.156, 82.161, 82.162, and 82.166.

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

63. NESHAPs Applicability Determinations. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the Permittee shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 C.F.R. 63.6(c).

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

[29] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors. Such other standards might include those found in 40 C.F.R. 82, Protection of Stratospheric Ozone.

Halon Prohibitions, 40 C.F.R. 82

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

[18 AAC 50.040(d)]
[40 C.F.R. 82.174 (b) - (d)]

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

[18 AAC 50.040(d)]
[40 C.F.R. 82.270 (b)-(f)]

Open Burning Requirements

66. Open Burning. If the Permittee conducts open burning at this stationary source, the Permittee shall comply with the requirements of 18 AAC 50.065.

66.1 The Permittee shall keep written records to demonstrate that the Permittee complies with the limitations in this condition and the requirements of 18 AAC 50.065. Upon request by the Department, submit copies of the records.

66.2 Compliance with this condition shall be an annual certification conducted under Condition 83.

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

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); 18 AAC 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 emission 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 as reference 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); 18 AAC 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); 18 AAC 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; 18 AAC 50.220(c)(1)(D)]

69.4 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(3); 18 AAC 50.220(c)(1)(E)]
[40 C.F.R. 60, Appendix A]

69.5 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

[`18 AAC 50.035(b)(2); 18 AAC 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); 18 AAC 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 emission unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3); 18 AAC 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 using the Method 9 Plan (Condition 2.1).

[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 emission unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 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 done 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 two copies 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 24.2, 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. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.040(a)(1); 18 AAC 50.326(j)]
[40 C.F.R 60.7(f), Subpart A; 40 C.F.R. 60.48c(i), Subpart Dc; 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 09.25.510 verifies that the electronic signature is authentic; and

b. the person providing the electronic signature has made an agreement, with the certifying authority described in Condition 78.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.205 & 50.345(a) & (j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

79. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original and one copy of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, source test reports, or other records under a cover letter certified in accordance with Condition 78.

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

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); 18 AAC 50.200; 18 AAC 50.326(a) & (j)]
[40 C.F.R. 71.5(a)(2) & 71.6(a)(3)]

81. Excess Emissions and Permit Deviation Reports.

81.1 Except as provided in Condition 59, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;

c. Report all other excess emissions and permit deviations:

(i) within 30 days after the end of the month during which the excess emissions or deviation occurred, except as provided in Conditions 81.1c(ii) and 81.1c(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 81.1c(i); or

(iii) for failure to monitor as required in Conditions 4.2b and 8.1b.

81.2 When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or https://myalaska.state.ak.us/dec/air/airtoolsweb/, or if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form that is used.

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); 18 AAC 50.326(j)(3); 18 AAC 50.346(b)(2) & (3)]

82. Operating Reports. During the life of this permit[30], the Permittee shall submit to the Department an original and one copy of an operating report by May 15 for the period January 1 to March 31, by August 15 for the period April 1 to June 30, by November 15 for the period July 1 to September 30, and by February 15 for the period October 1 to December 31 of the previous year.

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

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 When excess emissions or permit deviations that occurred during the reporting period are not reported with the operating report under Condition 82.1, the Permittee shall identify

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

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

82.4 The operating report must include for the period covered by the report a listing of emissions monitored under Conditions 2.1e, 7.2 and 35.2a, 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;

[30] *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.

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

82.5 **Transition from Expired to Renewed Permit.** For the first period of this renewed operating permit, also provide the previous permit's operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

83. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an original and one copy of an annual compliance certification report[31]. The Permittee, at their discretion, may submit one copy in electronic format (PDF or other Department compatible image format).

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 EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

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

84. NSPS and NESHAP Reports. The Permittee shall:

84.1 **Reports:** 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; and

[31] See Conditions 83.2 and 83.3 for clarification on the number of reports required.

84.2 **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 EPA-issued monitoring waiver or custom monitoring schedule with the permit.

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

85. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions, by emission unit[32], 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 using the form in Section 13 of this permit, as follows:

85.1 Every third year by March 31 since the stationary source's potential emissions exceed 100 TPY but are less than 2,500 TPY of SO_2 and NOx.

85.2 The Permittee shall commence reporting in 2012 for the calendar year of 2011, 2015 for calendar year 2014, etc.

85.3 Include in the report required by this condition, the required data elements contained within the form in Section 13 or those contained in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 (final rule published in 73 FR 76556 (December 17, 2008)) for each stack associated with an emission unit.

[18 AAC 50.346(b)(8); 18 AAC 50.200]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1); 40 C.F.R. 51, Appendix A to Subpart A, 73 FR 76556]

[32] Emissions from nonroad engines are not required to be included in the emission inventory reports.

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-Region 10:

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[33];

86.2 The information shall be submitted to the same address as in Condition 83.3;

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); 18 AAC 50.326(b); 18 AAC 50.346(b)(7)]
[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); 18 AAC 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. Parts 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

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

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);

[33] The documents required in Condition 86.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501.

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.

89. Operational Flexibility. The Permittee may make changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions):

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

89.2 For each such change, the written notification required by Condition 89.1 shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

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

90. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than **August 1, 2015** and no later than **August 1, 2016. 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); 18 AAC 50.326(c)(2) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii), 71.7(b) & (c)(1)(ii)]

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); 18 AAC 50.345(a) & (b)]

92. The Permittee shall comply with each permit term and condition.

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

92.2 Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

a. an enforcement action;

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

c. denial of an operating permit renewal application.

[18 AAC 50.040(j); 18 AAC 50.326(j); 18 AAC 50.345(a) & (c)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

93. 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); 18 AAC 50.345(a) & (d)]

94. 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

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

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

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

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

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

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

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

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

96.2 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)]

97. Table D identifies the emission units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table D becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis. The Permittee shall also provide appropriate notification and apply for a construction permit and/or an operating permit modification and/or permit amendment, as necessary.

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

Table D – Permit Shields Granted

Non-Applicable Requirements	Reason for Non-Applicability
Gas Fired Heaters – EU IDs 10 – 14 (42-1411, 42-1412, 42-1400, 42-1403, 42-1404), EU IDs 15 – 20 (41-1410, 41-1420, 41-1430, 41-1440, 41-1450 & 46-1460)	
40 C.F.R. 60 Subpart D – Standards of Performance for Fossil Fuel-Fired Steam Generators	Heat input capacities below threshold (250 MMBtu/hr); and units not classified as "*Fossil-Fuel-Fired Steam Generators*," as defined in subpart.
40 C.F.R. 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units	Heat input capacities below threshold (250 MMBtu/hr); and units not classified as "*Electric Utility Steam Generating Units*," as defined in subpart.
40 C.F.R. 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities below threshold (100 MMBtu/hr).
Gas Fired Heaters – EU IDs 10 – 11 (42-1411 & 42-1412)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities below threshold (10 MMBtu/hr) and commenced construction prior to effective date of subpart (6/9/89).
Gas Fired Heater – EU ID 12 (42-1400)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Installation of new burners did not make the heater an affected unit for NSPS – no modification or reconstruction occurred. Commenced construction before the applicability date of the subpart.

Non-Applicable Requirements	Reason for Non-Applicability
Gas Fired Heaters – EU IDs 13 – 20 (42-1403, 42-1404, 41-1410, 41-1420, 41-1430, 41-1440 & 41-1450)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to the effective date of subpart (6/9/89).
Gas-Fired Heater – EU ID 20 (46-1460)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units §60.42c through §60.47c, §60.48c(a)(4) through (f) & (h), and §60.8	Standards for SO_2 and PM and related performance tests, monitoring, and reporting requirements are not applicable to the affected emission unit.
§60.48c(a)(2) and (3) – Reporting and Recordkeeping Requirements	The emission unit fires only gas. Therefore, it is not subject to any requirements that limit the annual capacity factor for any fuel or mixture of fuels.
§60.48c(a)(1) and §60.7(a)(1) and (3) – Initial Notification Requirements	Completed as required.
40 C.F.R. 60 Subpart A – General Provisions §60.7(a)(4) – Notification and Recordkeeping	Applies only to "existing facilities", as defined in 40 C.F.R. 60.2
§60.7(c) & (d) – Excess Emissions Reporting	Apply only to NSPS sources which require the installation of a continuous monitoring system (CMS) or monitoring device, as defined in 40 C.F.R. 60.2, or as required under specific NSPS subparts for periodic monitoring. The affected fuel gas fired heater is not required by Subpart Dc to install a CMS or monitoring device nor are they any applicable emission limits for the fuel gas fired heater to which "excess emissions" could apply.
Fixed Roof Storage Tanks – 42-1909, 42-1926, EU ID 41 (42-1900), EU ID 43 (42-1920), 42-1915, & 42-1930	
40 C.F.R. 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below threshold (40,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or storage prior to custody transfer; and/or commenced construction after effective date (5/19/78), depending upon tank.
40 C.F.R. 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below thresholds (40,000/420,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or petroleum or condensate storage prior to custody transfer; and/or commenced construction prior to or after effective dates (5/18/78 – 7/23/84), depending upon tank.
Fixed Roof Storage Tank – 42-1915	
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Vessel not storing a volatile organic liquid (VOL) or petroleum liquid, as defined in subpart.
Fixed Roof Storage Tanks – 42-1909 & 42-1926	

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Subpart Kb does not apply to vessels with a capacity greater than or equal to 151 cubic meters (39,891 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kPa (0.5 psia).
Fixed Roof Storage Tanks – 42-1900 & 42-1920	
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	In a letter to BPXA dated August 11, 2005, EPA determined that these tanks meet the definition of a process tank in Section 60.111b (as amended 10/15/03). Therefore, these vessels are exempt from Subpart Kb.
Fixed Roof Storage Tanks – 42-1930	
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Subpart Kb does not apply to vessels with a capacity less than 75 m^3.
All Storage Tanks	
40 C.F.R. 63 Subpart OO - National Emission Standards for Tanks – Level 1	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO.
40 C.F.R. 63 Subpart SS – National Emission Standards for Closed Vent Systems	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart SS.
Gas-Fired Turbines – EU IDs 1 – 9 (42-1800, 42-1801, 42-1826, 52-1807, 52-1808, 42-0101, 42-0102, 42-0103 & 42-0114)	
40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines §60.332(a)(1) – Standards for NOx	Standard applies to Electric Utility Stationary Gas Turbines as defined in subpart. These units are not Electric Utility Stationary Gas Turbines as defined in Subpart GG.
§60.334(a), (b), (d) – Monitoring of Operations §60.335(b)(4) – Test Methods and Procedures	Applies only to affected turbines equipped with water injection to control emissions of NOx. These units are not equipped with water injection to control emissions of NOx.
§60.334(e), (f) – Monitoring of Operations	Applies only to affected turbines that commence construction after July 8, 2004. Emission units commenced construction prior to this date.
§60.334(g) – Monitoring of Operations	Applies only to affected turbines subject to the continuous monitoring requirement of 40 C.F.R. 60.334(a), (d), or (f).
§60.334(h)(2) – Monitoring of Operations	BPXA has not claimed an allowance for fuel bound nitrogen to calculate the applicable NOx emission limit under 40 C.F.R. 60.332.
40 C.F.R. 60 Subpart A – General Provisions §60.7(a)(1) & (3) – Notification and Recordkeeping (Initial Notification) §60.8(a) Performance Test (Initial Performance Test Only)	Completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to “existing facilities”, as defined in 40 C.F.R. 60.2.
All Group I Gas Turbines EU IDs 1 - 9	

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines	Construction, modification, or reconstruction of each turbine commenced prior to the applicability date of February 18, 2005. The permit shield for Subpart KKKK only applies to currently installed units until modified, reconstructed or replaced.
Natural Gas Processing Plant EU ID 43	
40 C.F.R. 60 Subpart KKK - Standards of performance for equipment leaks of VOC from Onshore Natural Gas Processing Plants [Subpart VV – Standards of Performance for equipment leaks of VOC in SOCMI Industry incorporated by reference] §60.482-2(a)(1) – Standards: Pumps in Light Liquid Service §60.482-7(a), (c)(1) – Standards: Valves in Gas/Vapor Service and Light Liquid Service §60.633(b)(1) - Exceptions	Stationary source is exempt from the routine monitoring requirements of these regulations since it is located on the Alaskan North Slope [ref. 40 C.F.R. 60.633(e)].
§60.482-5 – Standards: Sampling Connection Systems	Sampling connection systems are exempt from the requirements of §60.482-5 [ref. 40 C.F.R. 60.633(c)].
§60.632(a) [§60.482-1(a)] – Standards (Initial Inspection) §60.482-10(f)(1)(i) – Standards: Closed Vent Systems and Control Devices (Initial Inspection)	Completed as required.
§60.7(a) (1) and (3) – Notification and Recordkeeping (Initial Notification)	Completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to “existing facilities”, as defined in 40 C.F.R. 60.2.
§60.7(b), (c), and (d) – Notification and Recordkeeping	The requirements of §60.7(b), (c), & (d) do not apply to affected units subject to 40 C.F.R. 60 Subpart VV [§60.486(k)] (incorporated by reference in 40 C.F.R. 60 Subpart KKK).
Flares – EU IDs 33 – 37 [42-2802 (LPC-F1), 42-2803 (LPC-F1), 42-2804 (LPC-F1), 42-2840 (LPC-F2) & 42-2841 (LPC-F2)]	
40 C.F.R. 60 Subpart KKK 40 C.F.R. 60 Subpart A – General Provisions §60.18(c)(5) and §60.18(f)(6) - General Control Device Requirements: Exit Velocity Requirements for Air-assisted flares	The flares at this stationary source are not air assisted. They are considered non-assisted flares.
Flare – EU ID 38 [42-2842 (LPC-F3)]	
40 C.F.R. 60 Subpart A – General provisions §60.18	EPA has determined that the LPC liquid burn pit flare is not subject to 40 C.F.R. 60 Subpart A, §60.18 (ref: EPA Region 10 correspondence dated October 19, 2005).
Drain Systems	
40 C.F.R. 63 Subpart RR – National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR.
Oil-Water Separators	

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63 Subpart VV – National Emission Standards for Oil- Water Separators and Organic-Water Separators	Provisions only apply to oil-water separators and organic-water separators affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart VV.
Gas Turbines – EU IDs 1 – 9 (42-1800, 42-1801, 42-1826, 52-1807, 52-1808, 42-0101, 42-0102, 42-0103 & 42-0114) Gas Fired Heaters – EU IDs 10 – 20 (42-1411, 42-1412, 42-1400, 42-1403, 42-1404, 41-1410, 41-1420, 41-1430, 41-1440, 41-1450 & 46-1460) Liquid Fuel-Fired Equipment – EU IDs 21 – 23, 24 – 30 [42-104 (LPC-EDE1), 42-1529 (LPC-EDE2), 42-1589 (LPC-EDE3), 80-808 (L1-EDE6), 80-802 (L2-EDE7), 80-805 (L3-EDE8), 80-806 (L4-EDE9), 80-875 (L5-EDE10), 80-891 (PM1-EDE4), 80-892 (PM2-EDE5), 80-859 (NIK-EDE11), & 80-614] Flares – EU IDs 33 – 38 [42-2802 (LPC-F1), 42-2803(LPC-F1), 42-2804(LPC-F1), 42-2840(LPC-F2), 42-2841(LPC-F2), & 42-2842 (LPC-F3)] Fixed Roof Storage Tanks – EU IDs 41 – 42 (42-1909 & 42-1926)	
40 C.F.R. 64 – Compliance Assurance Monitoring	These units do not use a "control device," as defined in 40 C.F.R. 64, to achieve compliance with any emission limitation or standard.
Glycol Dehydration Unit	
40 C.F.R. 64 – Compliance Assurance Monitoring	This unit does not use a "control device," as defined in 40 C.F.R. 64, to achieve compliance with any emission limitation or standard. The vapor collection and return system installed to return glycol dehydration unit process vent emissions back to the stationary source's gas handling system is inherent to the process and is not an "add-on control device".
Natural Gas Processing Plant	
40 C.F.R. 64 – Compliance Assurance Monitoring	This unit does not have potential pre-control device emissions of an applicable regulated air pollutant equal to or greater than 100 TPY (criteria pollutants), 10 TPY of any hazardous pollutant (HAP), or 25 TPY of all HAPs combined.
Fixed Roof Storage Tanks – 42-1900 & 42-1920	
40 C.F.R. 64 – Compliance Assurance Monitoring	The CAM rule defines control device to include only add-on controls and excludes inherent process equipment. The closed vent system for this tank is inherent process equipment which was installed and is operated primarily for material recovery and safety reasons, not for compliance with air quality regulations.
Stationary Source-Wide	
40 C.F.R. 60 Subpart J – Standards of Performance for Petroleum Refineries 40 C.F.R. 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries 40 C.F.R. 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Stationary source does not meet the definition for a petroleum refinery.
40 C.F.R. 60 Subpart LLL – Standards of Performance for Onshore Natural Gas Processing Plants: SO_2 emissions	Stationary source does not operate natural gas sweetening unit(s).

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution	Stationary source does not have any onshore affected facilities listed in 40 C.F.R. 60.5365(a) through (g) for which BPXA commenced construction, modification, or reconstruction after August 23, 2011 (the applicability date of the rule).
40 C.F.R. 61 Subpart J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in benzene service, as defined by subpart (10 percent benzene by weight).
40 C.F.R. 61 Subpart M – National Emission Standard for Asbestos §61.142 – Standard for Asbestos Mills	Stationary source is not an Asbestos Mill.
§61.143 – Standard for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste.
§61.144 – Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos.
§61.146 – Standard for Spraying	Stationary source does not spray apply asbestos containing materials.
§61.147 – Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos.
§61.148 – Standard for Insulating Materials	Stationary source does not install or reinstall, on any source component, insulation material containing commercial asbestos.
§61.149 – Standard for Waste Disposal for Asbestos Mills	Applies only to those facilities subject to §61.142 (Asbestos Mills).
§61.151 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those facilities subject to §61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
§61.152 – Standard for Air-Cleaning	Stationary source does not use air cleaning equipment.
§61.153 – Standard for Reporting	No reporting requirements apply for sources subject to §61.145 (demolition and renovation) [ref §61.153(a)].
§61.154 – Standard for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material.
§61.155 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Stationary source does not process regulated asbestos containing material (RACM).
Activities subject to 40 C.F.R. 61 Subpart M – Standard for Demolition and Renovation (§61.145)	
§61.05(a) – Prohibited Activities §61.07 – Application for Approval of Construction or Modification §61.09 – Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of §61.05(a), 61.07, and 61.09 [ref. 40 C.F.R. 61.145(a)(5)].
§61.10 – Source Reporting and Waiver Request	Demolition and renovation operations exempt from §61.10(a) [ref. 40 C.F.R 61.153(b)].
§61.13 – Emission Tests §61.14 – Monitoring Requirements	Emission test or monitoring is not required under the standards for demolition and renovation [§61.145].
Stationary Source-Wide	
40 C.F.R. 61 Subpart V – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	No process components in volatile hazardous air pollutant (VHAP) service, as defined by subpart (≥10 percent VHAP by weight).

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 61 Subpart Y – National Emission Standard for Benzene Emissions from Benzene Storage Vessels	Stationary source does not operate storage vessels in benzene service.
40 C.F.R. 61 Subpart BB – National Emission Standard for Benzene emissions from Benzene Transfer Operations	Stationary source does not conduct benzene transfer operations.
40 C.F.R. 61 Subpart FF – National Emission Standard for Benzene Waste Operations	Stationary source does not conduct benzene waste operations.
40 C.F.R. 63 Subpart B – Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Section 112(g) and 112(j)	Stationary source is not a major source of HAPs.
40 C.F.R. 63 Subpart T – National Emission Standards for Halogenated Solvent Cleaning	Stationary source does not operate halogenated solvent cleaning machines.
40 C.F.R. 63 Subpart HH – National Emissions Standards for Oil and Natural Gas Production Facilities	Neither the HAP-major source nor the area source provisions of this rule apply to the stationary source because the source qualifies for the "black oil exemption
40 C.F.R. 63 Subpart HHH – National Emission Standards for Natural Gas Transmission and Storage Facilities	Stationary source does not transmit or store natural gas prior to entering the pipeline to a local distribution company or to a final end user.
40 C.F.R. 63 Subpart EEEE – National Emissions Standards for Organic Liquid Distribution	Stationary source is not a major source of HAPs.
All Existing Engines at an Area Source Subject to NESHAP Subpart ZZZZ, EU ID(s) 21 – 32 (Tag #s 42-104, 42-1529, 42-1589, 80-808, RENT 2, 80-804, 80-806, 80-809, 80-891, 80-892, 80-859, 80-614)	
40 C.F.R. 63.6600, 40 C.F.R. 63.6601, and 40 C.F.R. 63.6602, Subpart ZZZZ - Emission Limitations	The stationary source is not a major source of HAP emissions.
40 C.F.R. 63.6610 and 40 C.F.R. 63.6611, Subpart ZZZZ – Testing and Initial Compliance Requirements	The stationary source is not a major source of HAP emissions.
40 C.F.R. 63.6650(g), Subpart ZZZZ – Reporting Requirements	Reporting requirement only applies to "new" or "reconstructed" stationary RICE which fire landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.
40 C.F.R. 63.6655(a) – (d), Subpart ZZZZ - Recordkeeping Requirements	There are no emissions or operating limits that apply to these engines. Additionally, the engines do not fire landfill or digester gas and a CEMS or CPMS is not required.
Existing Emergency Engines at an Area Source Subject to NESHAP Subpart ZZZZ, EU ID(s) 21, 24 – 31 (42-104, 80-808, RENT2, 80-804, 80-806, 80-809, 80-891, 80-892, 80-859, 80-614) **Existing Non-Emergency Engines (hp ≤300) at an Area Source Subject to NESHAP Subpart ZZZZ, EU ID(s) 22, 23, 32 (42-1529, 42-1589, 80-614)**	

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63, Subpart ZZZZ, Table 2b – Operating Limitations	There are no requirements in Table 2b of Subpart ZZZZ that apply to these engines because they are emergency engines and/or rated ≤ 500 bhp. This shield applies only for as long as the engine(s) rated > 500 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >500 bhp no longer qualify as "emergency" and thus, would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6604, Subpart ZZZZ - Fuel Requirements	The requirement to comply with 40 C.F.R. 80.510(b) does not apply to existing emergency engines or to non-emergency engines with a site rating of ≤ 300 bhp. This shield applies only for as long as the engine(s) meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6605(a), Subpart ZZZZ – General Compliance Requirements	Existing emergency engines and non-emergency engines with a site rating of ≤300 bhp are not subject to any emissions limitations or operating limitations under Subpart ZZZZ. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and thus, would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6612, Subpart ZZZZ – Testing and Initial Compliance Requirements	There are no requirements in either Table 4 or Table 5 of Subpart ZZZZ that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and thus, would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6615, Subpart ZZZZ – Subsequent Testing 40 C.F.R. 63.6620, Subpart ZZZZ – Performance Tests and Procedures	There are no performance testing requirements that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63.6625(g), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	This requirement does not apply to emergency engines or non-emergency engines with a site rating of ≤300 bhp. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6630, Subpart ZZZZ – Initial Compliance Demonstration	There are no performance testing requirements that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R 63.6635, Monitoring to Demonstrate Continuous Compliance	These requirements apply only to CI RICE subject to emissions or operational limits. There are no emissions or operational limits that apply to these engines. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6645, Subpart ZZZZ - Notification Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Per 40 C.F.R. 63.6645(a)(5), initial notification is not required for existing stationary emergency CI RICE or an existing stationary CI RICE that is not subject to any numerical emission standards. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.6640(a) and (b) and §60.6650(a)-(e), Subpart ZZZZ – Reporting Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Compliance status reporting requirements only apply to CI RICE subject to numerical emissions or operational limits. There are no emissions or operational limits that apply to these engines. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63.7, Subpart A – Performance Testing Requirements	There are no performance testing requirements that apply to these engines. This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
40 C.F.R. 63.8, Subpart A – Monitoring	Per 40 C.F.R. 63.6645(a)(5), these engines are not subject to the requirements of §63.8(e), (f)(4) and (f)(6). This shield applies only for as long as the engine(s) rated >300 bhp meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when the engine(s) rated >300 bhp no longer qualify as "emergency" and would be subject to the applicable provisions for "nonemergency" as provided in NESHAP Subpart ZZZZ.
Existing Non-Emergency Engines (hp ≤ 300) at an Area Source Subject to NESHAP Subpart ZZZZ, EU ID(s) 22, 23, 32 (42-1529, 42-1589, 80-614)	
40 C.F.R. 63.6625(f), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	These engines are not classified as emergency engines under Subpart ZZZZ.
40 C.F.R. 63.6640(f), Subpart ZZZZ – Continuous Compliance Demonstration	These engines are not classified as emergency engines under Subpart ZZZZ.
40 C.F.R. 63.6655(f), Subpart ZZZZ - Recordkeeping Requirements	These engines are not classified as emergency engines under Subpart ZZZZ and are not required to limit hours of operation per 40 C.F.R. 63.6640(f).
Stationary Source-Wide	
40 C.F.R. 82.1 Subpart A – Production and consumption controls	Stationary source does not produce, transform, destroy, import or export Class 1 or Group I or II substances or products.
40 C.F.R. 82.30 Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
40 C.F.R. 82.60 Subpart C – Ban on Nonessential Products containing Class I Substances and Ban on Nonessential Products containing or Manufactured with Class II Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.80 Subpart D – Federal Procurement	Subpart applies only to Federal Departments, agencies, and instrumentalities.
40 C.F.R. 82.100 Subpart E – The Labeling of Products Using Ozone-Depleting Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.158 Subpart F – Recycling and Emission Reductions	Stationary source does not manufacture or import recovery and recycling equipment.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 82.160 Subpart F– Approved Equipment Testing Organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
40 C.F.R. 82.164 Subpart F – Reclaimer Certification	Stationary source does not sell reclaimed refrigerant.
40 C.F.R. 82 Subpart F, Appendix C – Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third party entity that certifies recovery equipment.
40 C.F.R. 82 Subpart F, Appendix D- Standards for Becoming a Certifying Program for Technicians	Stationary source does not have a technician certification program.
40 C.F.R. 82.174(a) Subpart G – Significant New Alternatives Policy Program	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.
40 C.F.R. 82.270(a) Subpart H – Halon Emissions Reduction	Stationary source does not manufacture halon.
All Reciprocating IC Engines	
40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Not affected units (unless modified or reconstructed in the future). These emission units were manufactured prior to April 1, 2006 applicability date (see 40 C.F.R. 60.4200(a)(2)(i)), and have not been modified or reconstructed after July 11, 2005 (see 40 C.F.R. 60.4200(a)(3)).
All Group II Gas Fired Heaters	
40 C.F.R. 63 Subpart DDDDD - National Emissions Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters (except the initial notification requirements of 63.9(b)(2) and 63.7545(b))	The stationary source is an area source of HAPs
40 C.F.R. 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources	None of EU IDs 10 through 14 is a “boiler” as defined in 40 C.F.R. 63.11237. Also, “gas-fired boilers” as defined in 40 C.F.R. 63.11237 are exempt from this rule per 40 C.F.R. 63.11195(e).
All Insignificant Portable Diesel-Fired Heaters and Boilers	
40 C.F.R. 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources	These are “temporary boilers” or “hot water heaters” as defined in 40 C.F.R. 63.11237. Units that fit these classifications are exempt from this rule per 40 C.F.R. 63.11195(f) & (h).

Non-Applicable Requirements	Reason for Non-Applicability
All Combustion Turbines	
40 C.F.R. 63 Subpart YYYY - National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.	Stationary source is not a major source of HAPs and turbines located on the North Slope of Alaska are categorically exempt from this rule.
All Non Road Engines	
18 AAC 50.055(a)(1) – Fuel Burning Equipment Emission Standards: Visible Emissions 18 AAC 50.055(b)(1) – Fuel Burning Equipment Emission Standards: Particulate Matter 18 AAC 50.055(c) – Fuel Burning Equipment Emission Standards: Sulfur Compound Emissions	Non road (mobile) internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

- Stationary Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Stationary Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Present, is Plume…: check "attached" if water droplet plume forms prior to exiting stack, and "detached" if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.

  Wet Bulb Temperature: can be measured using a sling psychrometer

  RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.

  Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.

  Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.

  Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.

  Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.

  Observer's Signature, Date: sign and date after performing VE observation.
- Organization: observer's employer.
- Certified By: Date: name of "smoke school" certifying observer and date of most recent certification.

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

Page No._____

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. Emission Factors

Use the emission factors in Table E to calculate the annual emission rates for Condition 20.

Table E – Emission Factors

Type of Equipment	NOx	SO_2	CO
Gas Turbines EU IDs 1 – 9	The Permittee may use either the allowable short-term emission limit if greater than the source test results, or representative source test data.	Material balance based on actual monthly fuel gas H_2S concentration.	The Permittee may use either the allowable short-term emission limit or AP-42 emission factors if greater than the source test results, or representative source test data.
Gas Heaters EU IDs 10 – 20	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than the source test results, or representative source test data.	Material balance based on actual monthly fuel gas H_2S concentration.	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than the source test results, or representative source test data.

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

Section 13. ADEC Notification Form[34]

Lisburne Production Center | AQ0272TVP02

Stationary Source Name | **Air Quality Permit No.**

BP Exploration (Alaska) Inc. |

Company Name | **Date**

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

Begin Date: ___ / ___ / _____ Time: ____ : ____ (Use 24-hr clock.)

End Date: ___ / ___ / _____ Time: ____ : ____ (Use 24-hr clock.)

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

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

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

☐ Excess Emissions – Complete Section 1 and Certify

☐ Deviation from Permit Condition – Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

Section 1. Excess Emissions

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

(b) Cause of Event (Check one that applies):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

(c) Description
Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

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

[34] Revised as of August 24, 2006.

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

☐ Opacity _____ % ☐ Venting _____ gas/scf ☐ Control Equipment Down

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable? ☐ Yes ☐ No

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ Yes ☐ No

Certify Report (Go to end of form.)

Section 2. Permit Deviations

(a) Permit Deviation Type (check only one box, corresponding with the section in the permit):

☐ Emission Unit-Specific ☐ Generally Applicable Requirements

☐ Failure to Monitor/Report ☐ Reporting/Monitoring for Diesel Engines

☐ General Source Test/Monitoring Requirements ☐ Recordkeeping Failure

☐ Recordkeeping/Reporting/Compliance Certification ☐ Insignificant Emission Unit

☐ Standard Conditions Not Included in the Permit ☐ Stationary Source Wide

☐ Other Section: _____ (Title of section and section number of your permit).

(b) Emission Unit Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the deviation.

EU ID	EU Name	Permit Condition/ Potential Deviation

(c) Description of Potential Deviation:
Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions:
Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To Submit this Report:

Fax to: 907-451-2187
Or
Email to: DEC.AQ.Airreports@alaska.gov
If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 82.
Or
Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643
Or
Phone Notification: 907-451-5173
Phone notifications require a written follow-up report.
Or
Submission of information contained in this report can be made electronically at the following website:
https://myalaska.state.ak.us/dec/air/airtoolsweb/
If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]

Section 14. Emission Inventory Form

ADEC Reporting Form Emission Inventory Reporting	Emission Inventory Year- [ ]

Mandatory information is highlighted. Make additional copies as needed.

Inventory start date:	
Inventory end date:	
Inventory Type:	

Facility Information:	
ADEC Stationary Source ID:	
(Stationary Source) Facility Name:	
AFS ID:	
Census Area/ Community:	
Line of Business (NAICS):	
Contact/Owner Name:	
Contact Owner Address:	
Contact/Owner Phone Number:	
Facility Physical Address:	
	Lat: Long:
Mailing Address:	

Emission Unit:	
ID:	
Description:	
Manufacturer:	
Model Number:	
Serial Number:	
Year of Manufacture:	
Maximum Nameplate Capacity:	
Design Capacity (BTU/hr):	

Control Equipment (List All):	
	Control Equipment Type (Primary or Secondary):
	ID:
	Type:
	Manufacturer:
	Model:
	Control Efficiency (%):
	Capture Efficiency (%):
	Total Capture Efficiency (%):
	Pollutants Controlled:

PROCESS	**THROUGHPUT**
SCC Code:	**Total Amount:**
Material Processed:	**Summer %:**
Operational Periods:	**Fall %:**
	Winter %:
FUEL INFORMATION	**Spring %:**
Ash Content (weight %):	**Days/Week of Operation:**
Elem. Sulfur Content (weight %):	**Weeks/Year of Operation:**
H2S Sulfur Content (ppmv):	**Hours/Day of Operation:**
Heat Content (MMBtu/1000 gal or MMBtu/MMscf):	**Hours/Year of Operation:**
Heat Input (MMBtu/hr):	
Heat Output (MMBtu/hr):	

Emissions:

	POLLUTANT	**Emission Factor**	**Emission Factor Numerator**	**Emission Factor Denominator**	**Emission Factor Origin**	**Tons Emitted**
	CO					
	NH_3					
	NOx					
	PM10-PRI					
	PM25-PRI					
	SO_2					
	VOC					
	Lead and lead compounds					

Stack Description:	
	STACK DETAIL
	ID:
	Type:
	Measurement Units:
	Base Elevation:
	Stack Height:
	Stack Diameter:
	Exit Gas Temp:
	Exit Gas Velocity:
	Actual Exit Gas Flow Rate:
	Data Source:

	Description:
	Latitude:
	Longitude:
	Location Description:
	Method Accuracy Description (MAD) Codes (as defined in 40 C.F.R. 51.50)
	Horizontal Reference Datum Code:
	Horizontal Accuracy (m):
	Horizontal Collection Method Code:

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

Printed Name_____Title_____Date _____

Signature_____ Phone number_____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To Submit this report:

1. Fax this form to: 907-465-5129; or
2. E-mail to: DEC.AQ.airreports@alaska.gov; or
3. Mail to: ADEC
   Air Permits Program
   410 Willoughby Ave., Suite 303
   PO Box 111800
   Juneau, AK 99801-1800

[18 AAC 50.346(b)(9)]